CDX-CA900/CA900X

SERVICE MANUAL

Ver 1.1 2002. 08

US Model
Canadian Model
CDX-CA900X
AEP Model
UK Model
E Model
CDX-CA900

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-393XA-121//Q
Optical Pick-up Name	KSS-720A

AUDIO POWER SPECIFICATIONS (US Model)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

SPECIFICATIONS

CD player section

Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 107.9 MHz (US, Canadian Model) 87.5 – 108.0 MHz (AEP, UK, E Model)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	0.6% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM (US, Canadian Model)

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

MW/LW (AEP, UK, E Model)

Tuning range	MW : 531 – 1,602 kHz LW : 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW : 30 µV LW : 40 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (front /rear) Subwoofer output (mono) Power antenna relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal Illumination control terminal BUS control input terminal BUS audio input or AUX IN terminal Remote controller input connector (AEP, UK, E Model) Antenna input terminal
Tone controls	Bass ±10 dB at 62 Hz (US, Canadian Model) Bass ±8 dB at 100 Hz (AEP, UK, E Model) Treble ±10 dB at 16 kHz (US, Canadian Model) Treble ±8 dB at 10 kHz (AEP, UK, E Model)
Loudness	+8 dB at 100 Hz +2 dB at 10 kHz

– Continued on next page –

FM/AM COMPACT DISC PLAYER
CDX-CA900X

FM/MW/LW COMPACT DISC PLAYER
CDX-CA900

9-874-007-02
2002H0400-1
© 2002. 08
Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

SONY®

Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 179 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.3 kg (2 lb. 14 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1) Card remote commander (1) RM-X112 (US, Canadian model) RM-X113 (AEP, UK, E model) Rotary commander (1) RM-X6S

Note

This unit cannot be connected to a digital preamplifier or an equalizer.

Design and specifications are subject to change without notice.

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

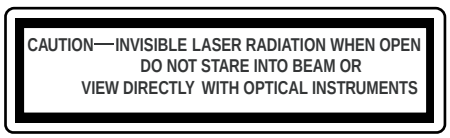
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

• AEP, UK model

This label is located on the bottom of the chassis.



This label is located on the drive unit's internal chassis.

SAFETY-RELATED COMPONENT WARNING!!

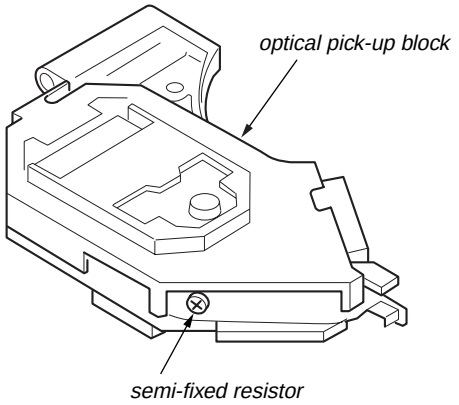
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

• US, Canadian model

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

Notes on CD-R/CD-RW discs

- You can play CD-Rs (recordable CDs)/CD-RWs (rewritable CDs) designed for audio use on this unit.
  Look for these marks to distinguish CD-Rs/CD-RWs for audio use.

These marks denote that a disc is not for audio use.

- Some CD-Rs/CD-RWs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.
- You cannot play a CD-R/CD-RW that is not finalized*.

* A process necessary for a recorded CD-R/CD-RW disc to be played on the audio CD player.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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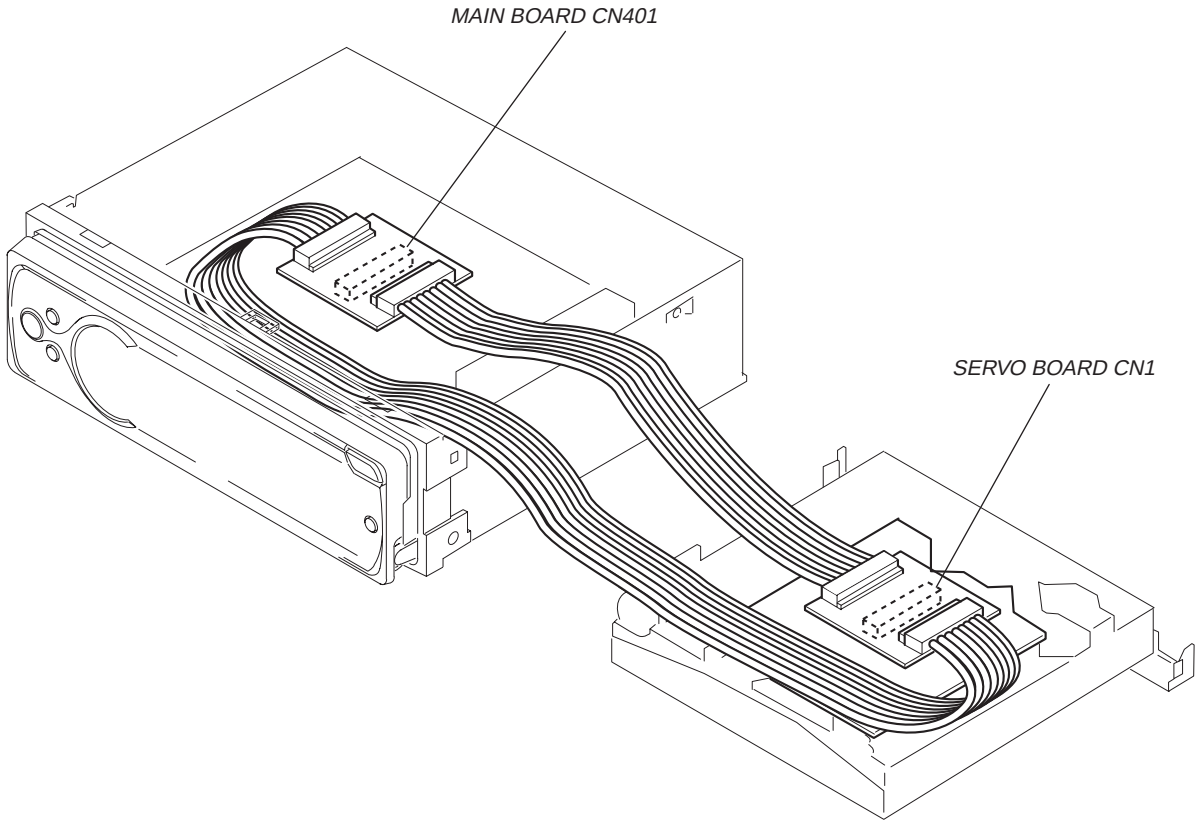
EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CN401) and the SERVO board (CN1) with the extension cable (Part No. J-2502-062-1).

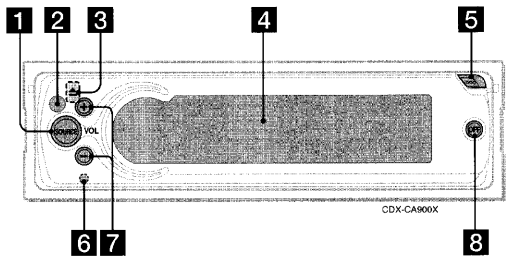


SECTION 1
GENERAL

This section is extracted from instruction manual.

(US, Canadian Model)

Main unit



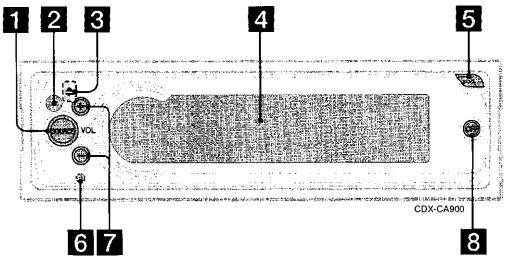
1 **SOURCE button**
2 **Receptor for the card remote commander and rotary commander**
3 **⏏ (eject) button** (located on the front side of the unit, behind the front panel) 9
4 **Display window**
5 **OPEN button** 8, 9
6 **RESET button** (located on the front side of the unit, behind the front panel) 7
7 **VOL (+/–) buttons**
8 **OFF button***

*** Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press (OFF) for 2 seconds to turn off the clock display.
Otherwise, the clock display does not turn off and this causes battery drain.

Note
If the unit is turned off by pressing (OFF) for 2 seconds, the unit cannot be operated with the card remote commander or the rotary commander unless (SOURCE) on the unit is pressed or a disc is inserted to activate the unit.

(AEP, UK, E Model)

Main unit



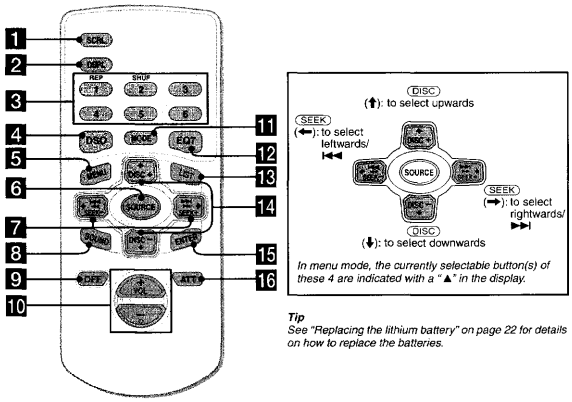
1 **SOURCE button**
2 **Receptor for the card remote commander and rotary commander**
3 **⏏ (eject) button** (located on the front side of the unit, behind the front panel) 9
4 **Display window**
5 **OPEN button** 8, 9
6 **RESET button** (located on the front side of the unit, behind the front panel) 7
7 **VOL (+/–) buttons**
8 **OFF button***

*** Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press (OFF) for 2 seconds to turn off the clock display.
Otherwise, the clock display does not turn off and this causes battery drain.

Note
If the unit is turned off by pressing (OFF) for 2 seconds, the unit cannot be operated with the card remote commander or the rotary commander unless (SOURCE) on the unit is pressed or a disc is inserted to activate the unit.

Location of controls (US, Canadian Model)

Card remote commander RM-X112



Tip
See "Replacing the lithium battery" on page 22 for details on how to replace the batteries.

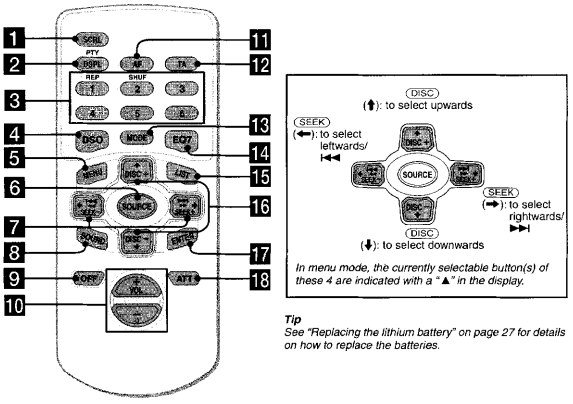
Refer to the pages listed for details.

1 **SCRL button** 10
2 **DSPL (display mode change) button**
3 **Number buttons**
① **REP**
② **SHUF**
To store stations/receive stored stations.
4 **DSO button** 19
5 **MENU button**
To display the menus.
6 **SOURCE (Power on/Radio/CD/MD*1/AUX*2) button**
To select the source.
7 **SEEK (←/→) buttons**
To skip tracks, fast-forward, reverse a track, tune in stations automatically, find a station manually, and select a setting.
8 **SOUND button** 17, 20
9 **OFF (Stop/Power off) button** 8, 9, 21
10 **VOL buttons (+/–)**
To turn up or down the volume.
11 **MODE button**
To change the operation.
12 **EQ7 button** 18
13 **LIST button** 13, 15
14 **DISC (↑/↓) buttons**
To receive preset stations, change the disc*3, skip albums*4, and select a menu.
15 **ENTER button**
To enter a setting.
16 **ATT button** 17

*1 When an optional MD unit is connected.
*2 Available only when an optional Sony portable device connected to BUS AUDIO IN of the unit. You cannot connect any optional CD/MD units at the same time.
*3 When an optional CD/MD unit is connected.
*4 Available only when optional CD unit with the MP3 file control function is connected, and MP3 file is played.

Location of controls (AEP, UK, E Model)

Card remote commander RM-X113



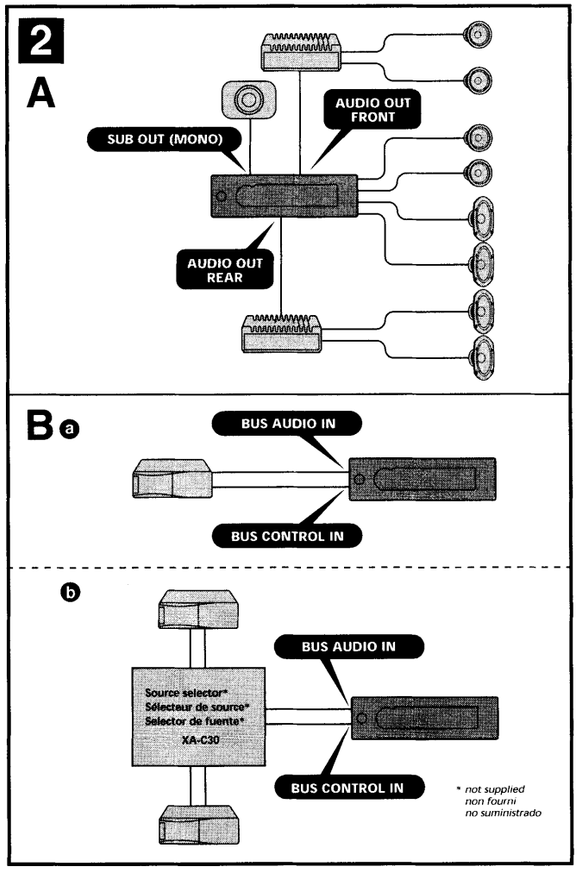
Tip
See "Replacing the lithium battery" on page 27 for details on how to replace the batteries.

Refer to the pages listed for details.

1 **SCRL button** 10
2 **DSPL/PTY (display mode change) button**
3 **Number buttons**
① **REP**
② **SHUF**
To store stations/receive stored stations.
4 **DSO button** 24
5 **MENU button**
To display the menus.
6 **SOURCE (Power on/Radio/CD/MD*1/AUX*2) button**
To select the source.
7 **SEEK (←/→) buttons**
To skip tracks, fast-forward, reverse a track, tune in stations automatically, find a station manually, and select a setting.
8 **SOUND button** 21, 24, 25
9 **OFF (Stop/Power off) button** 8, 9, 26
10 **VOL buttons (+/–)** 16
To turn up or down the volume.
11 **AF button** 15, 17
12 **TA button** 16, 17
13 **MODE button**
To change the operation.
14 **EQ7 button** 23
15 **LIST button** 13, 14
16 **DISC (↑/↓) buttons**
To receive preset stations, change the disc*3, skip albums*4, and select a menu.
17 **ENTER button**
To enter a setting.
18 **ATT button** 21

*1 When an optional MD unit is connected.
*2 Available only when an optional Sony portable device connected to BUS AUDIO IN of the unit. You cannot connect any optional CD/MD units at the same time.
*3 When an optional CD/MD unit is connected.
*4 Available only when optional CD unit with the MP3 file control function is connected, and MP3 file is played.

Connections (US, Canadian Model)



Connection example (2)

***Notes* (2-A)**
- *Be sure to connect the ground cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

Exemple de raccordement (2)

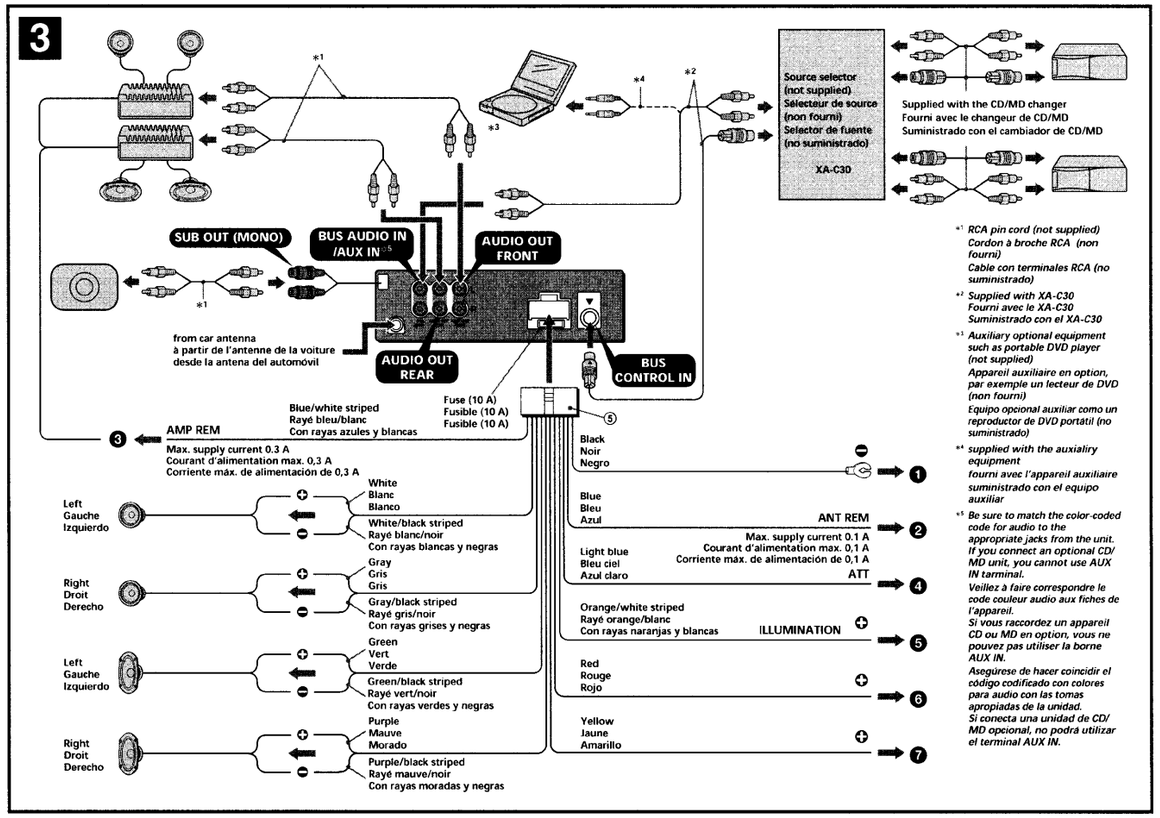
***Remarques* (2-A)**
- *Raccordez le fil de masse avant de raccorder l'amplificateur.*
- *Si vous raccordez un amplificateur de puissance indépendant et que vous n'utilisez pas l'amplificateur intégré, le bip sonore est désactivé.*

***Conseil* (2-B-b)**
Dans le cas du raccordement de deux changeurs ou plus, le sélecteur de source XA-C30 (en option) est nécessaire.

Ejemplo de conexiones (2)

***Notas* (2-A)**
- *Asegúrese de conectar primero el cable de puesta a masa antes de realizar la conexión al amplificador.*
- *Si conecta un amplificador de potencia opcional y no utiliza el incorporado, los pitidos se desactivarán.*

***Consejo* (2-B-b)**
Si desea conectar dos o más cambiadores de CD/MD, necesitará el selector de fuente XA-C30 (opcional).



*1 RCA pin cord (not supplied)
Cordon à broche RCA (non fourni)
Cable con terminales RCA (no suministrado)

*2 Supplied with XA-C30
Fourni avec le XA-C30
Suministrado con el XA-C30

*3 Auxiliary optional equipment such as portable DVD player (not supplied)
Appareil auxiliaire en option, par exemple un lecteur de DVD (non fourni)
Equipo opcional auxiliar como un reproductor de DVD portátil (no suministrado)

*4 supplied with the auxialiry equipment
fourni avec l'appareil auxiliaire
suministrado con el equipo auxiliar

*5 Be sure to match the color-coded code for audio to the appropriate jacks from the unit. If you connect an optional CD/MD unit, you cannot use AUX IN tarminal.
Veillez à faire correspondre le code couleur audio aux fiches de l'appareil.
Si vous raccordez un appareil CD ou MD en option, vous ne pouvez pas utiliser la borne AUX IN.
Asegúrese de hacer coincidir el código codificado con colores para audio con las tomas apropiadas de la unidad.
Si conecta una unidad de CD/MD opcional, no podrá utilizar el terminal AUX IN.

Connection diagram (3)

1. **To a metal surface of the car**
   First connect the black ground lead, then connect the yellow and red power input leads.
2. **To the power antenna control lead or power supply lead of antenna booster amplifier**
   Notes
   - *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
   - *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*
3. **To AMP REMOTE IN of an optional power amplifier**
   This connection is only for amplifiers. Connecting any other system may damage the unit.
4. **To the interface cable of a car telephone**
5. **To a car's illumination signal**
   Be sure to connect the black ground lead to it first.
6. **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
   Notes
   - *If there is no accessory position, connect to the +12 V power (battery) terminal which is energised at all times.*
     Be sure to connect the black ground lead to it first.
   - *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*
7. **To the +12 V power terminal which is energised at all times**
   Be sure to connect the black ground lead to it first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker wires installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker cords to each other.*

Schéma de raccordement (3)

1. **Vers un point métallique de la voiture**
   Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation jaune et rouge.
2. **Vers le fil de commande de l'antenne électrique ou le fil d'alimentation de l'amplificateur d'antenne**
   Remarques
   - *Il n'est pas nécessaire de raccorder ce fil s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
   - *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir "Remarques sur les fils de commande et d'alimentation".*
3. **Vers le connecteur AMP REMOTE IN de l'amplificateur de puissance en option**
   Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.
4. **Vers le cordon de liaison d'un téléphone de voiture**
5. **Vers le connecteur du signal d'éclairage de la voiture**
   Raccordez d'abord le fil de masse noir à ce connecteur.
6. **Vers la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
   Remarques
   - *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
     Raccordez d'abord le fil de masse noir à cette borne.
   - *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir "Remarques sur les fils de commande et d'alimentation".*
7. **Vers la borne +12 V qui est alimentée en permanence**
   Raccordez d'abord le fil de masse noir à cette borne.

Remarques sur les fils de commande et d'alimentation
- *Le fil de commande de l'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez l'appareil sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez la sortie de commande de l'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleur au châssis de la voiture et ne raccordez pas les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de masse de cet appareil à la borne négative (–) de l'enceinte.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les fils des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un fil négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Diagrama de conexión (3)

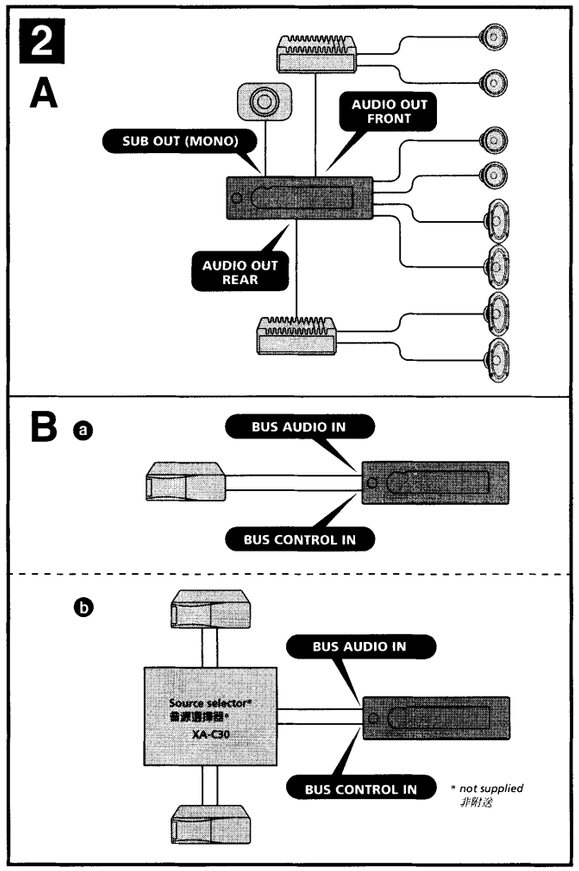
1. **A una superficie metálica del automóvil**
   Conecte primero la conexión a masa negra, y después los cables amarillo y rojo de entrada de alimentación.
2. **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de la señal de la antena**
   Notas
   - *Si no se dispone de antena motorizada ni de amplificador de la señal de la antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
   - *Si el automóvil incorpora una antena de FM/AM en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*
3. **Para conectar a AMP REMOTE IN del amplificador de potencia opcional**
   Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.
4. **Al cable de interfaz de un teléfono para automóvil**
5. **A una señal de iluminación del automóvil**
   Asegúrese de conectar primero el cable de masa negra.
6. **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorios del interruptor de la llave de encendido**
   Notas
   - *Si no hay posición de accesorios, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
     Asegúrese de conectar primero la conexión a masa negra.
   - *Si el automóvil incorpora una antena de FM/AM en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*
7. **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
   Asegúrese de conectar primero la conexión a masa negra.

Notas sobre los cables de control y de fuente de alimentación
- *La conexión de control de la antena motorizada (azul) suministrará + de 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero/lateral, conecte la conexión de control de antena motorizada (azul) o la conexión de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de la señal de la antena existente. Para obtener información detallada, consulte a su proveedor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta la conexión de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, aunque ponga la llave de encendido en la posición Off.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte la conexión de puesta a tierra de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Connections (E Model)



Connection example (2)

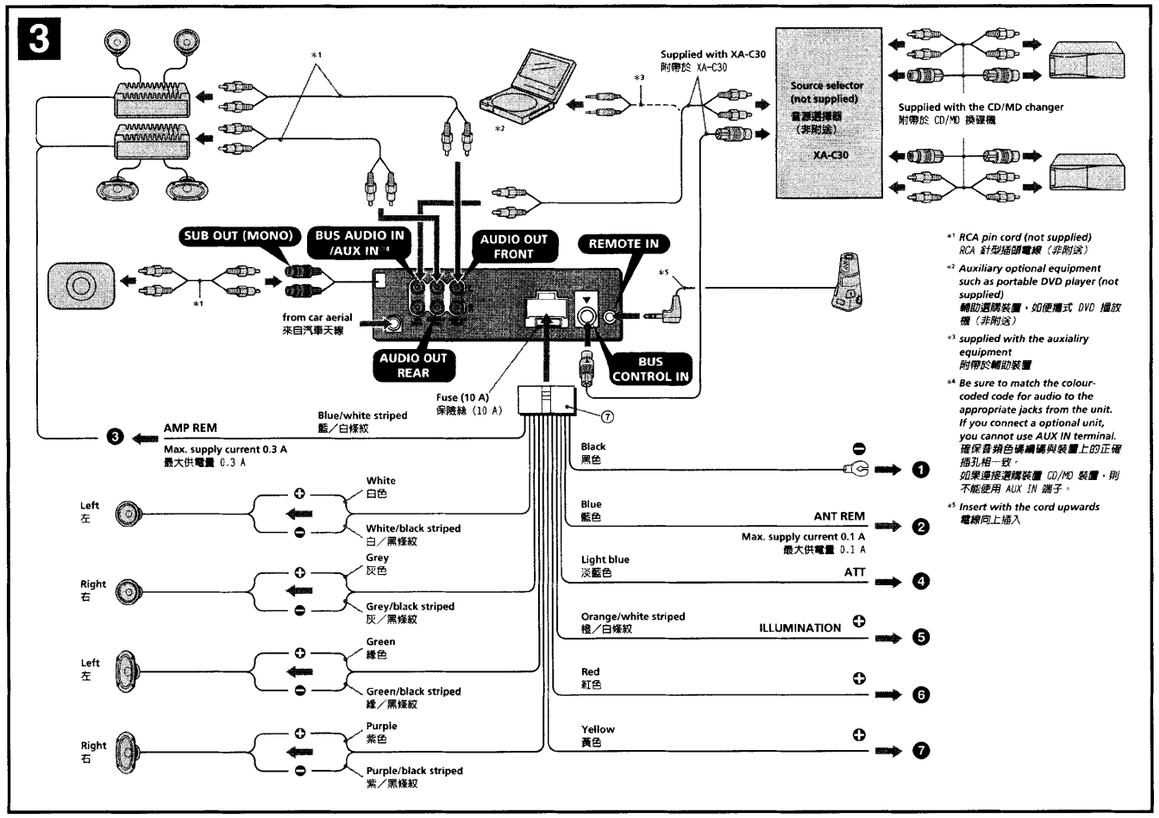
Notes (2-A)
- *Be sure to connect the earth cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

Tip (2-B-b)
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

線路連接圖例（2）

註（2-A）
- *務必在接放大器之前連接地線。*
- *如果您連接了選購的功率放大器而不使用內裝的放大器，將無嘟聲功能。*

要領（2-B-b）
若要連接 2 台或更多 CD/MD 換碟機時，必須使用音源選擇器 XA-C30（選購件）。



Connection diagram (3)

1. **To a metal surface of the car**
   First connect the black earth lead, then connect the yellow and red power input leads.
2. **To the power aerial control lead or power supply lead of aerial booster amplifier**
   Notes
   - *It is not necessary to connect this lead if there is no power aerial or aerial booster, or with a manually-operated telescopic aerial.*
   - *When your car has a built-in FM/MW/LW aerial in the rearside glass, see "Notes on the control and power supply leads."*
3. **To AMP REMOTE IN of an optional power amplifier**
   This connection is only for amplifiers. Connecting any other system may damage the unit.
4. **To the interface cable of a car telephone**
5. **To a car's illumination signal**
   Be sure to connect the black ground lead to it first.
6. **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
   Notes
   - *If there is no accessory position, connect to the +12 V power (battery) terminal which is energised at all times.*
     Be sure to connect the black earth lead to it first.
   - *When your car has a built-in FM/MW/LW aerial in the rearside glass, see "Notes on the control and power supply leads."*
7. **To the +12 V power terminal which is energised at all times**
   Be sure to connect the black earth lead to it first.

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the AF (Alternative Frequency), TA (Traffic Announcement) function.*
- *When your car has built-in FM/MW/LW aerial in the rearside glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker wires installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker cords to each other.*

線路連接圖（3）

1. **至汽車的金屬部位**
   首先連接黑色接地導線，然後再連接黃色和紅色電源輸入導線。
2. **至電動天線控制導線或天線升壓放大器的電源導線**
   註
   - *如無電動天線，天線增壓器，或用手操作的套管式天線，便不須連接此導線。*
   - *您的汽車的後／側玻璃窗中如果內裝有 FM/MW/LW 天線，即請參看"控制和電源線須知"。*
3. **至選購的功率放大器的 AMP REMOTE IN（放大器遙控輸入）**
   本連接僅用於放大器。連接任何其它系統可能會損壞本機。
4. **至汽車電話的接口電纜**
5. **至汽車照明電源**
   務請首先將黑色接地導線與其連接。
6. **至在點火鑰匙的輔助位置上通電的 +12 V 電源端子**
   註
   - *若沒有輔助位置，則請連接至常時通電的 +12 V 電源（電池）端子。*
     務請首先將黑色接地導線與其連接。
   - *您的汽車的後／側玻璃窗中如果內裝有 FM/MW/LW 天線，即請參看"控制和電源線須知"。*
7. **至隨時都通電的 +12 V 電源端子**
   務請首先將黑色接地導線與其連接。

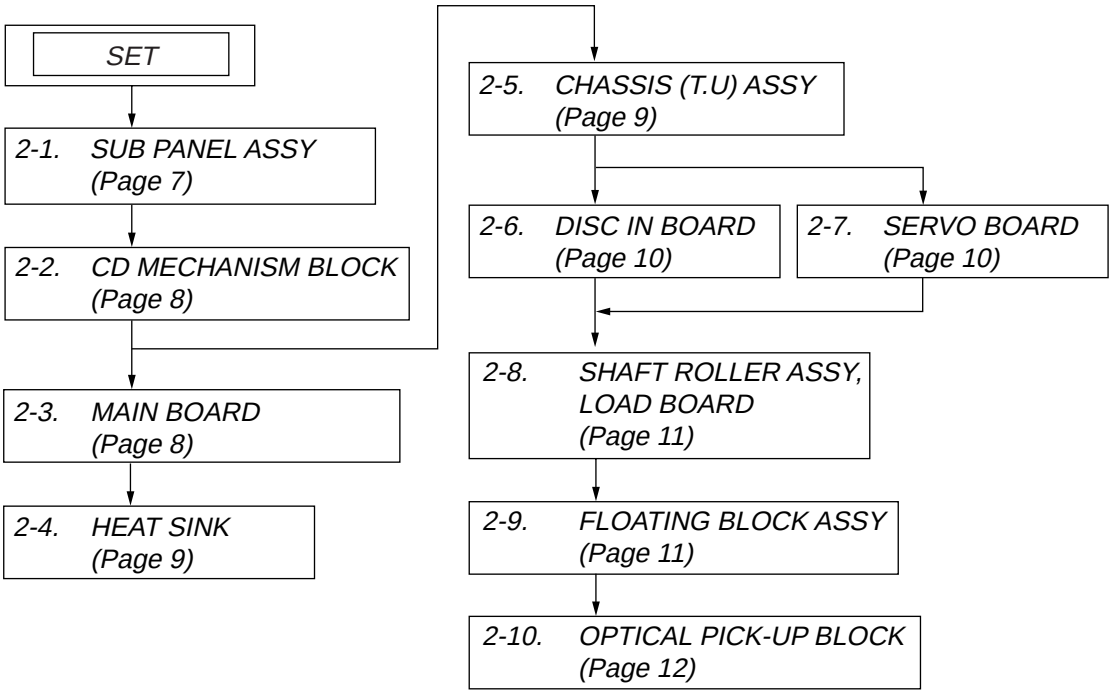
控制和電源線須知
- *當您打開調諧器或啓動 AF（變換頻率）或 TA（交通公告）功能時，電源天線控制導線（藍色）提供 +12 V 直流電。*
- *若您的汽車後／側玻璃窗上有內置 FM/MW/LW 天線，須將電動天線控制導線（藍色）或輔助電源輸入導線（紅色）連接到現有天線放大器上的電源端子上。詳細內容請向銷售商詢問。*
- *本機不能使用不具備繼電箱的電動天線。*

保持記憶的線路連接法
當連接好黃色電源輸入導線時，即使汽車發動機點火鑰匙被轉在電源切斷之處，電源仍繼續將電流供給記憶用電路，以保持所記憶著的數據。

連接揚聲器時的注意事項
- *連接揚聲器電線以前，請先切斷本機電源。*
- *使用阻抗 4–8Ω 且具有充分功率處理容量的揚聲器，以免損壞揚聲器。*
- *不要將揚聲器端子連接到汽車底盤上或將右揚聲器端子與左揚聲器端子相連接。*
- *切勿將本機的接地導線連接至揚聲器的負（–）接線柱。*
- *揚聲器不可以並聯連接。*
- *請僅連接無源揚聲器。若將有源揚聲器（帶內置放大器）連接到揚聲器端子上會損壞本機。*
- *若本裝置使用左、右揚聲器的共用（–）輸導線，爲了避免故障，切勿使用已安裝在汽車內的內置揚聲器導線。*
- *請勿將本裝置揚聲器導線相互連接。*

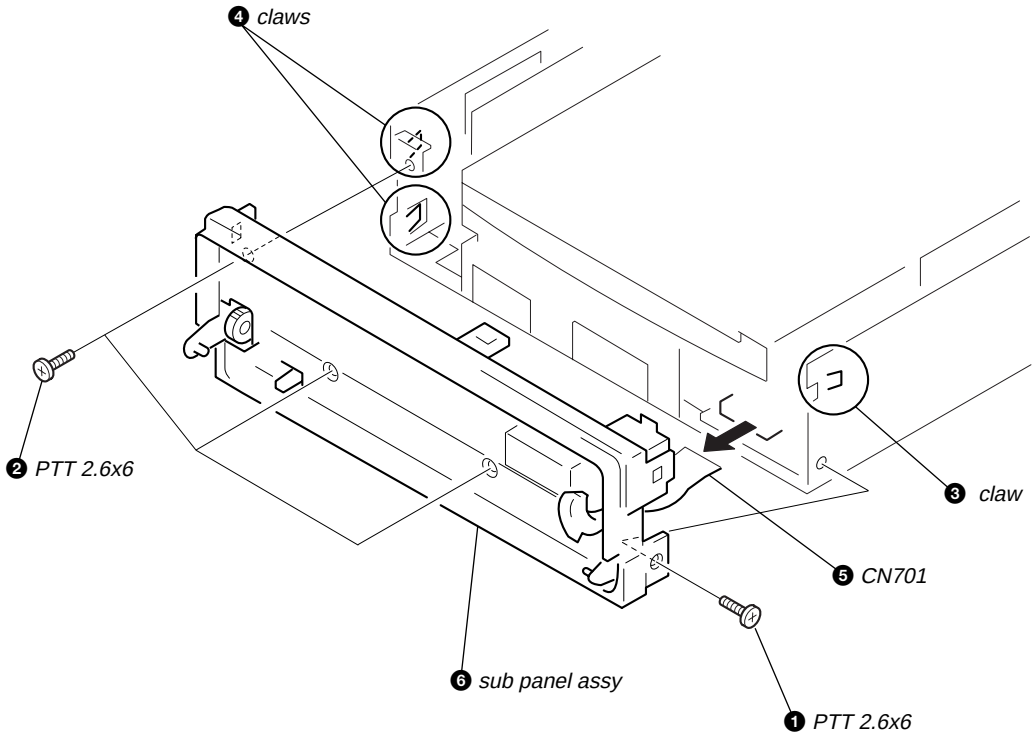
SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

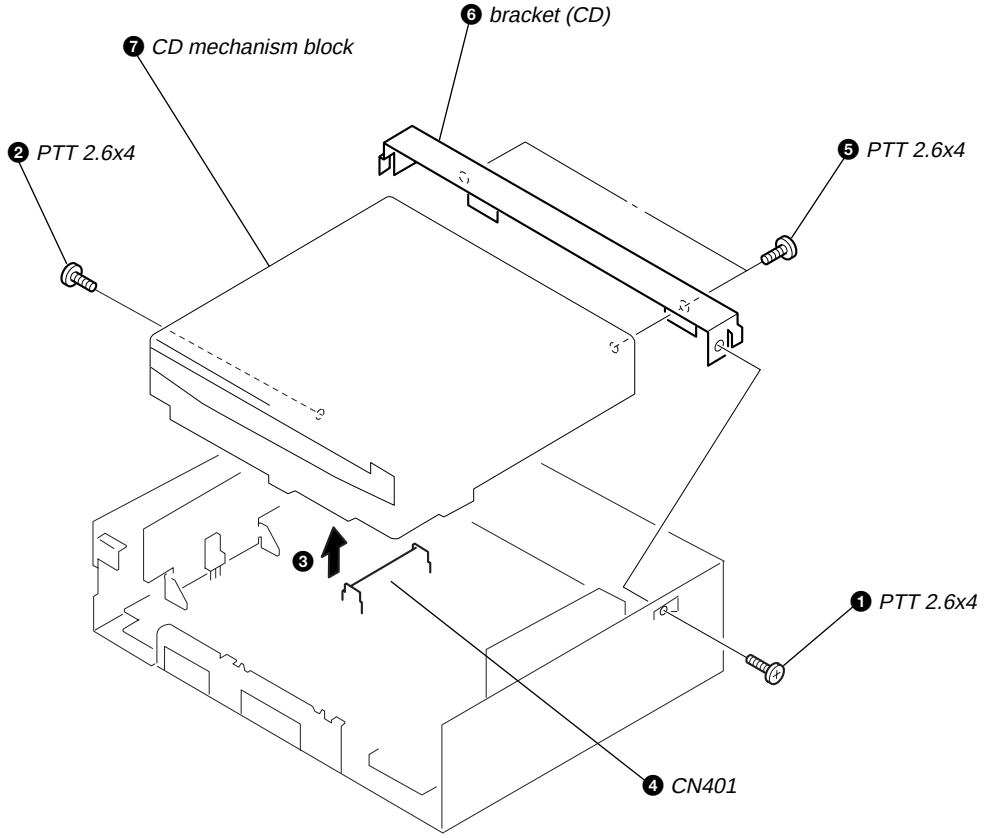

SET
2-1. SUB PANEL ASSY (Page 7)
2-2. CD MECHANISM BLOCK (Page 8)
2-3. MAIN BOARD (Page 8)
2-4. HEAT SINK (Page 9)
2-5. CHASSIS (T.U) ASSY (Page 9)
2-6. DISC IN BOARD (Page 10)
2-7. SERVO BOARD (Page 10)
2-8. SHAFT ROLLER ASSY, LOAD BOARD (Page 11)
2-9. FLOATING BLOCK ASSY (Page 11)
2-10. OPTICAL PICK-UP BLOCK (Page 12)

Note : Follow the disassembly procedure in the numerical order given.

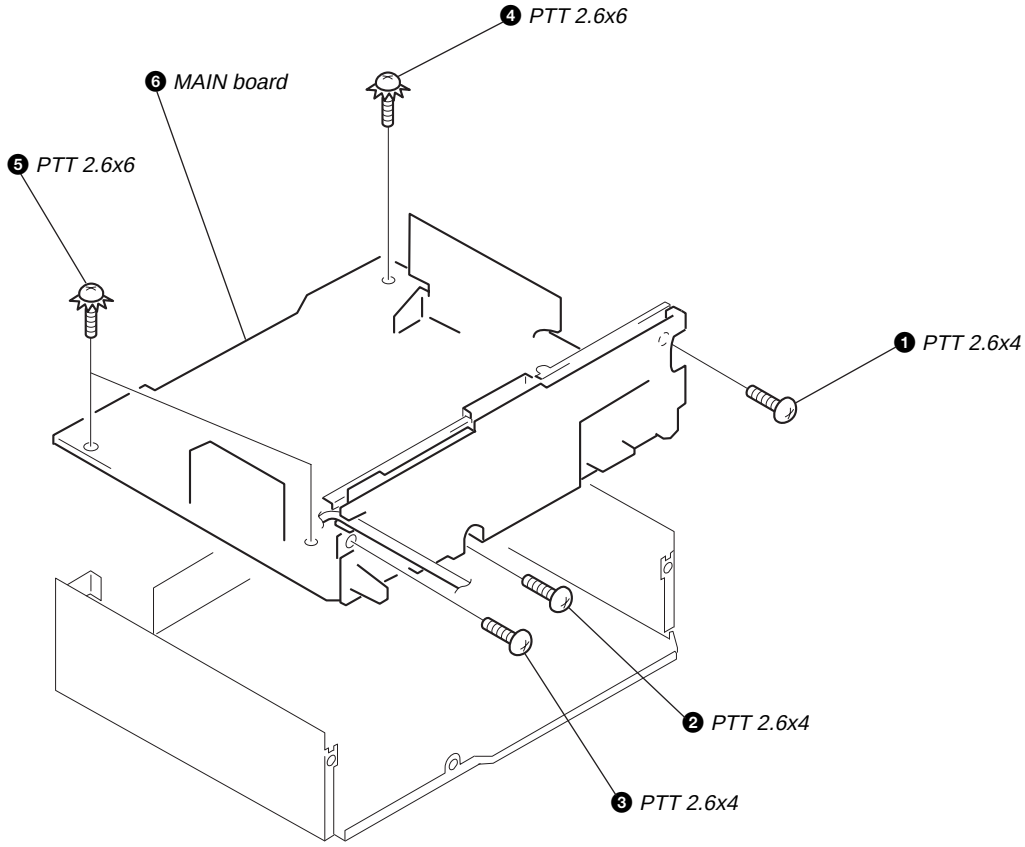
2-1. SUB PANEL ASSY



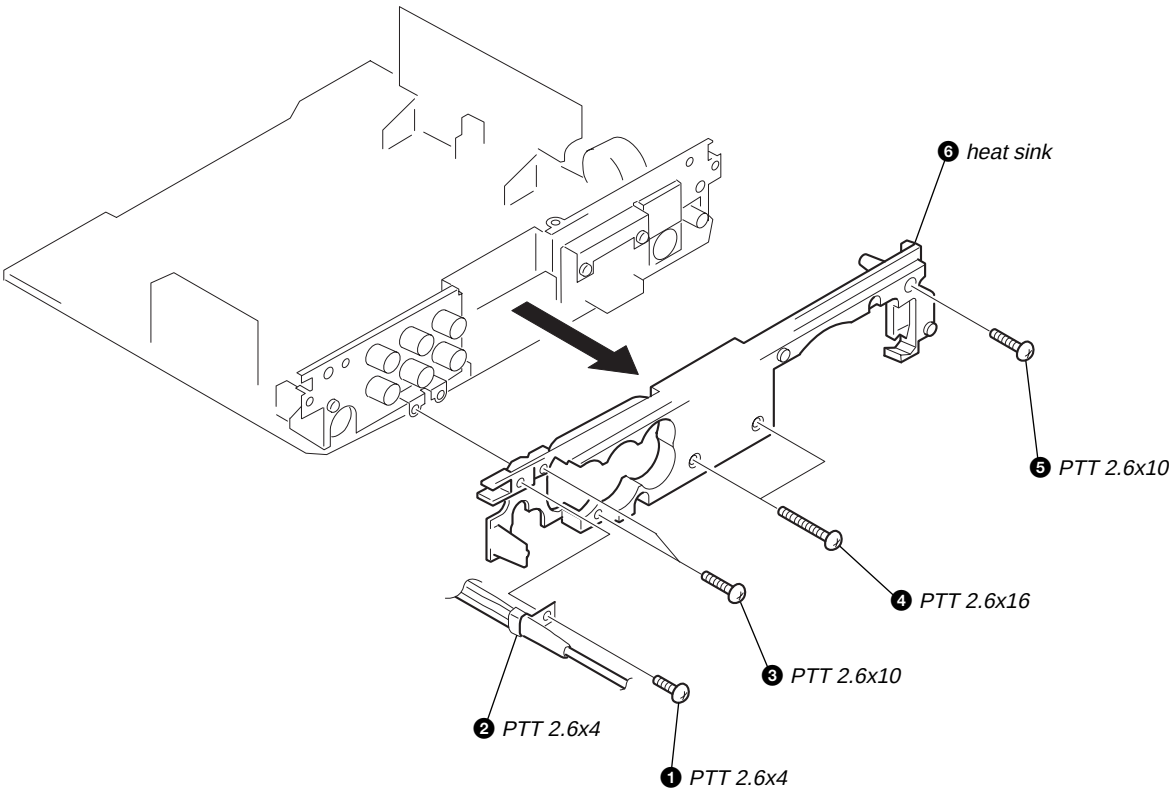
2-2. CD MECHANISM BLOCK



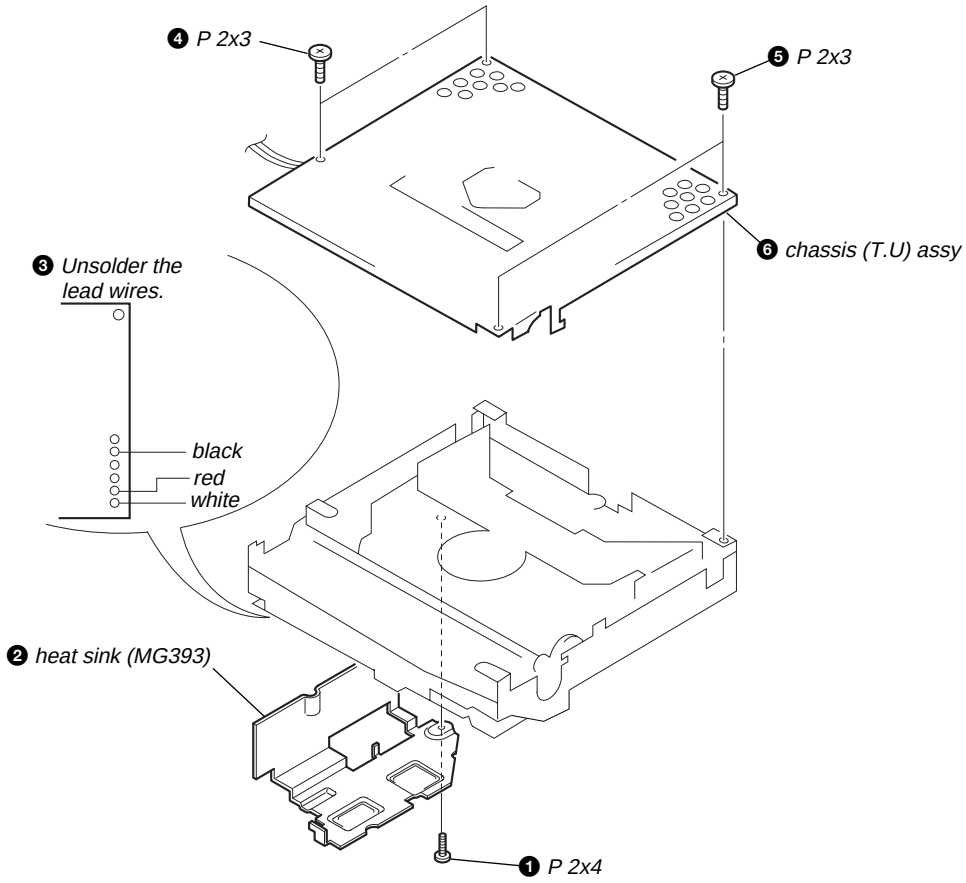
2-3. MAIN BOARD



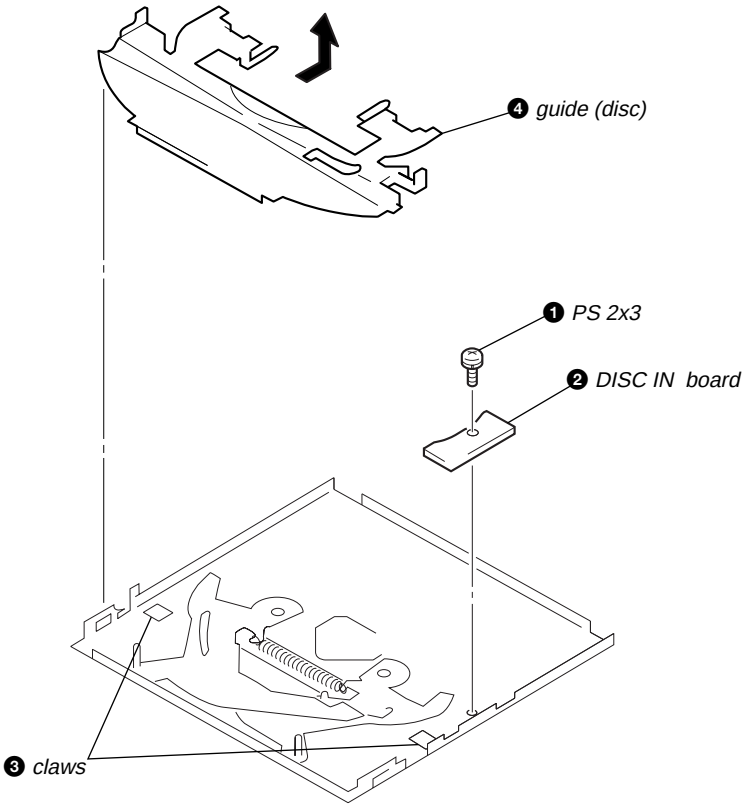
2-4. HEAT SINK



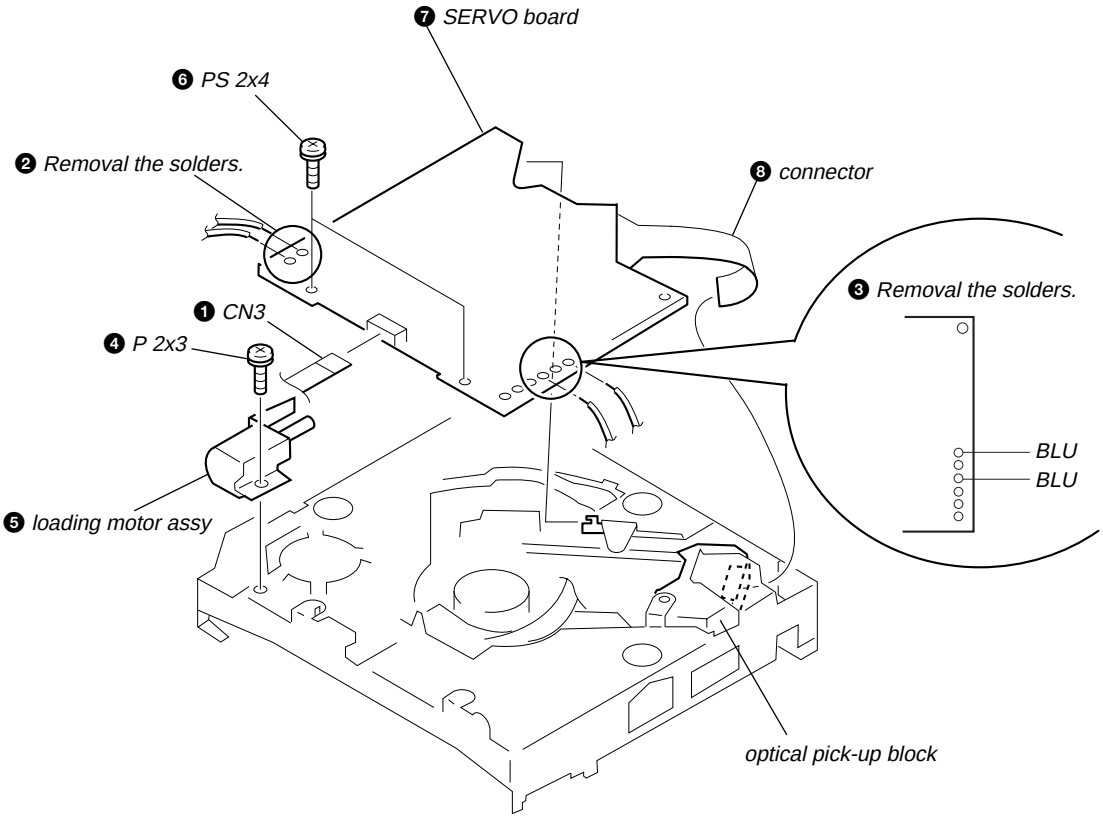
2-5. CHASSIS (T.U) ASSY



2-6. DISC IN BOARD



2-7. SERVO BOARD



2-8. SHAFT ROLLER ASSY, LOAD BOARD

• When installing, take note of the positions arm (roller) and washers. (Fig. 1)

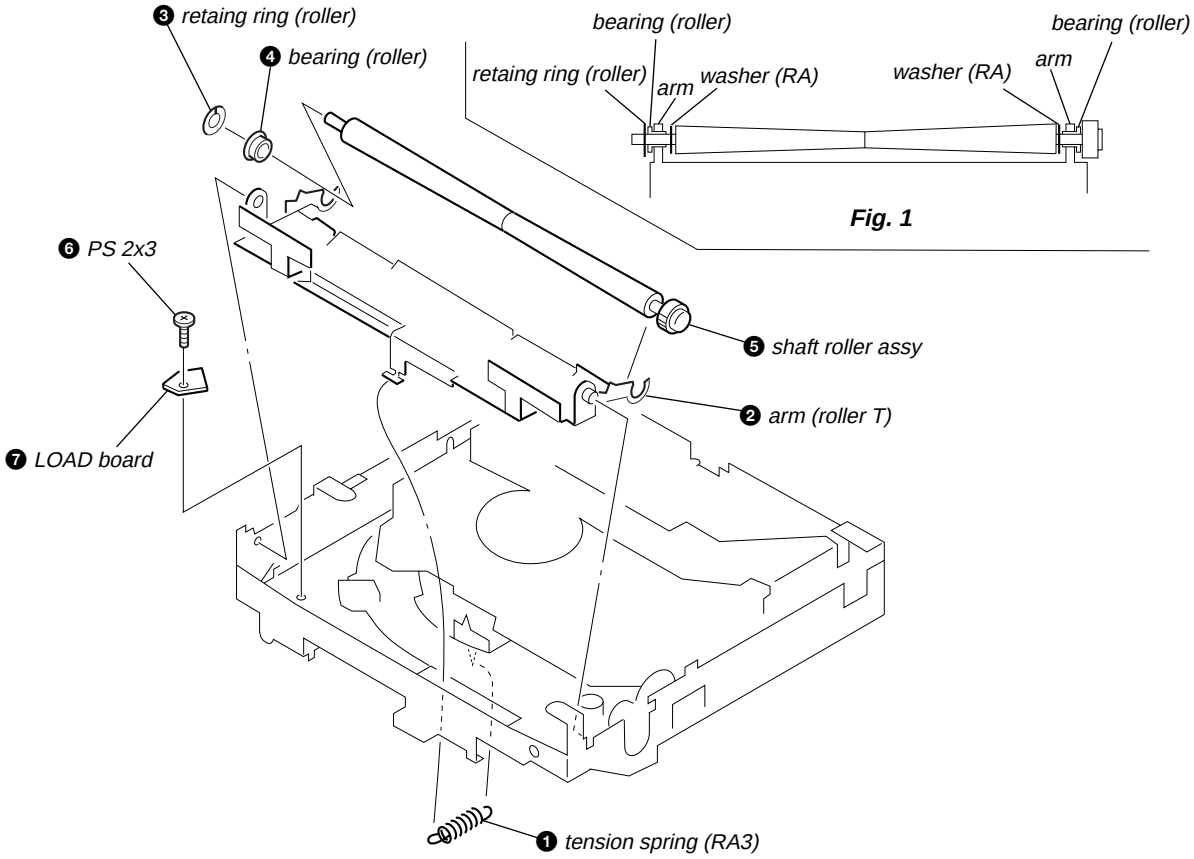
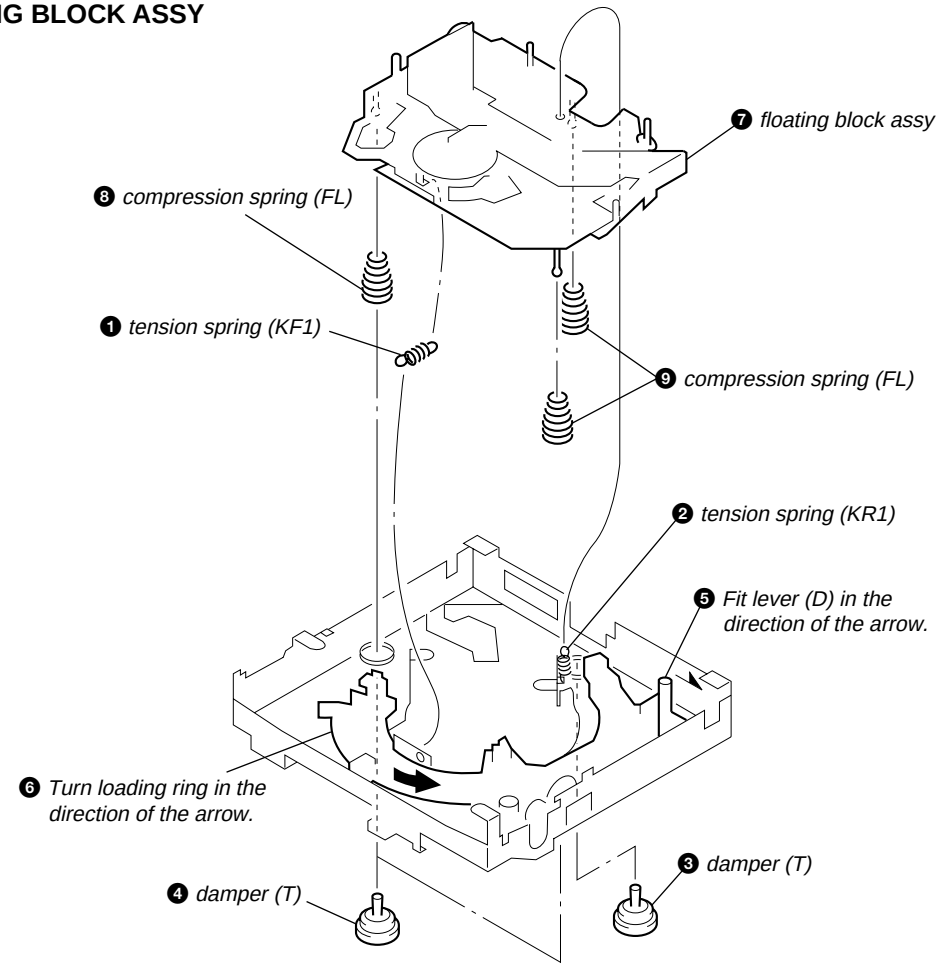
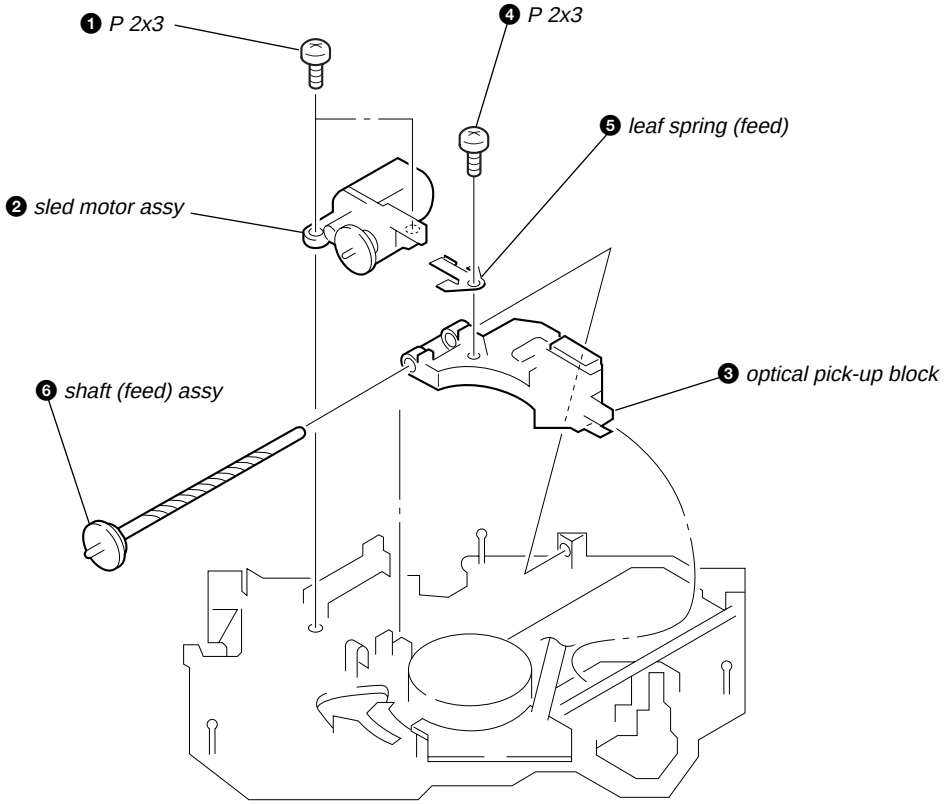


Fig. 1

2-9. FLOATING BLOCK ASSY


❼ floating block assy
❽ compression spring (FL)
❶ tension spring (KF1)
❾ compression spring (FL)
❷ tension spring (KR1)
❺ Fit lever (D) in the direction of the arrow.
❻ Turn loading ring in the direction of the arrow.
❸ damper (T)
❹ damper (T)

2-10. OPTICAL PICK-UP BLOCK



SECTION 3
DIAGRAMS

3-1. IC PIN DESCRIPTIONS

• IC501 MB90574CPMT-G-367-BNDE1 (SYSTEM CONTROL) (US, Canadian Model)

• IC501 MB90574CPMT-G-368-BNDE1 (SYSTEM CONTROL) (AEP, UK, E Model)

Pin No.	Pin Name	I/O	Pin Description
1	RF OK	I	Servo IC RFOK signal input from servo IC (IC1)
2	CD RST	O	Servo IC reset signal output to servo IC (IC1)
3	A0	O	Servo IC command/parameter identification signal output to servo IC (IC1) Command transmission: "L"
4	STB	O	Servo IC data storob signal output to servo IC (IC1) Data latch: "L"
5	ATT	O	System mute control signal output
6	XTAL EN	O	Not used in this set.
7	LIMIT	I	CD mechanism limit switch signal input (SW3)
8	VCC	—	Power supply pin (+5 V)
9	$\overline{\text{AMP ATT}}$	O	Power amp mute signal output to power amp (IC381)
10	E2PSIO	I/O	EEPROM data signal input/output with tuner unit (TUX201)
11	E2PCKO	O	EEPROM clock signal output to tuner unit (TUX201)
12	DOOR SW/FLS SI	I	Front panel open/close detection signal input/Flash write data signal input
13	FLS SO	O	Flash write data signal output
14	$\overline{\text{BUS ON}}$	O	Bus on control signal output
15	BEEP	O	Beep signal output to power amp (IC381)
16	(NCO)	O	Not used. (Open)
17	UNISI	I	SONY bus data signal input
18	UNISO	O	SONY bus data signal output
19	UNICKO	O	SONY bus clock signal output
20, 21	(NCO)	O	Not used. (Open)
22	$\overline{\text{SYSRST}}$	O	System reset signal output to bus interface (IC601)
23	(NCO)	O	Not used.
24	SIRCS	I	Remote control data signal input
25	TSI	I	Servo IC serial data signal input from servo IC (IC1)
26	TSO	O	Servo IC serial data signal output to servo IC (IC1)
27	TCKO	O	Servo IC serial clock signal output to servo IC (IC1)
28	PH1	I	CD mechanism PH1 detection signal input Not used in this set.
29	CD DSW	I	CD mechanism down switch signal input (SW4)
30	IN SW/PH2	I	CD mechanism disc-in switch signal input (SW1)
31	PH3	I	CD mechanism PH3 detection signal input Not used in this set.
32	CD LM LO	O	CD mechanism loading motor control signal output
33	VSS	—	Ground pin
34	C	—	Capacitance pin of power stabilized
35	CD LM EJ	O	CD mechanism eject motor control signal output
36	AMP ON	O	Amp on signal output to power amp (IC381) "L": OFF, "H": ON
37	$\overline{\text{VOLATT}}$	O	Electronic volume mute signal output to electronic volume (IC301) "L": Mute
38	DVCC	—	D/A converter VREF input (+5 V)
39	DVSS	—	D/A converter ground pin
40	ADSO1	O	ADSO select switch output 1
41	ADSO2	O	ADSO select switch output 2
42	AVCC	—	Analog power supply pin (+5 V)
43	AVRH	—	A/D convert Vref+ input (+5 V)
44	AVRL	—	A/D convert Vref– input (0 V)
45	AVSS	—	Analog ground pin
46	KEYIN0	I	Key signal input
47	NC	O	Not used. (Open)
48	RC IN0	I	Rotary commander signal input from remote in jack (J651)
49	(NCO)	O	Not used. (Open)
50	QUALITY	I	Tuner noise detection signal input (E model)

Pin No.	Pin Name	I/O	Pin Description
51	NC	O	Not used. (Open)
52	MPTH	O	Not used in this set. (Open)
53	VSM	I	S-meter signal input from tuner unit (TUX201)
54	VCC	—	Power supply pin (+5 V)
55	BUS/$\overline{\text{AUX}}$	O	BUS/AUX audio ground select signal output "H": BUS
56	NS MASK	O	Tuner noise mask signal output (E model)
57	$\overline{\text{BOOT}}$	O	Display microcomputer write control signal output to sub system control (IC701)
58	DOORIND	O	Front panel indicator signal output
59 to 62	—	I	Not used in this set. (Connect to ground.)
63	VSS	—	Ground pin
64	CD PACK	I	Servo IC CD text pack synchronization signal input
65, 66	(NCO)	O	Not used. (Open)
67	CD SELFSW	I	CD mechanism self load position detection switch signal input (SW2)
68	—	O	Not used. (Open)
69	$\overline{\text{FLASH W}}$	I	Flash write mode detection signal input
70	I2CSIO	O	Tuner (TUX201), electronic volume (IC301) communication data signal output
71	I2CCKO	O	Tuner (TUX201), electronic volume (IC301) communication clock signal output
72	KEYACK	I	Key acknowledge detection signal input
73	X1A	—	Low speed oscillation signal input (32.768 kHz)
74	X0A	—	Low speed oscillation signal input (32.768 kHz)
75	DAVN	I	RDS data block synchronization detection signal input (E model)
76	(NCO)	O	Not used. (Open)
77	BU IN	I	Back up power detection signal input
78, 79	—	O	Not used. (Open)
80	$\overline{\text{ADON}}$	O	Power control signal output of A/D converter
81	$\overline{\text{NOSESW}}$	I	Front panel attachment detection signal input from nose detect switch (S102) "L": ON
82	FLASH ON	O	Flash write jig power supply signal output
83	PWON	O	System power control signal output
84	—	O	Not used. (Open)
85	RAMBU	I	Reset detection signal input of RAM
86	HSTX	I	Hardware standby signal input "L": Standby mode
87	MD2	I	Operation mode signal input Connect to ground in this set.
88, 89	MD1, 0	I	Operation mode signal input Connect to VCC in this set.
90	RESET	I	Microcomputer reset signal input
91	VSS	—	Ground pin
92	X0	—	High speed oscillation signal input (3.68 MHz)
93	X1	—	High speed oscillation signal input (3.68 MHz)
94	VCC	—	Power supply pin (+5 V)
95, 96	NC	O	Not used. (Open)
97 to 101	(NCO)	O	Not used. (Open)
102	MODELSEL0 U•E/$\overline{\text{J}}$ (P)	I	Not used. (Open) Destination detection signal input
103	10k/$\overline{\text{9k}}$ (P)	I	Not used. (Open) Destination detection signal input
104	(NCO)	O	Not used. (Open)
105	CD MON	O	CD mechanism power control signal output to power supply (IC801)
106	CD ON	O	CD mechanism voltage control signal output to power supply (IC801)
107	RCIN1 (P)	I	Rotary commander signal input from remote in jack (J651)
108	$\overline{\text{TESTIN (P)}}$	I	Test mode set up detection signal input
109	$\overline{\text{TELATT (P)}}$	I	Tell mute detection signal input
110	ILLIN (P)	I	Illumination line detection signal input "L": Dimmer on
111	—	O	Not used. (Open)
112	(NCO)	O	Not used. (Open)
113	TUNON	O	Tuner on signal output

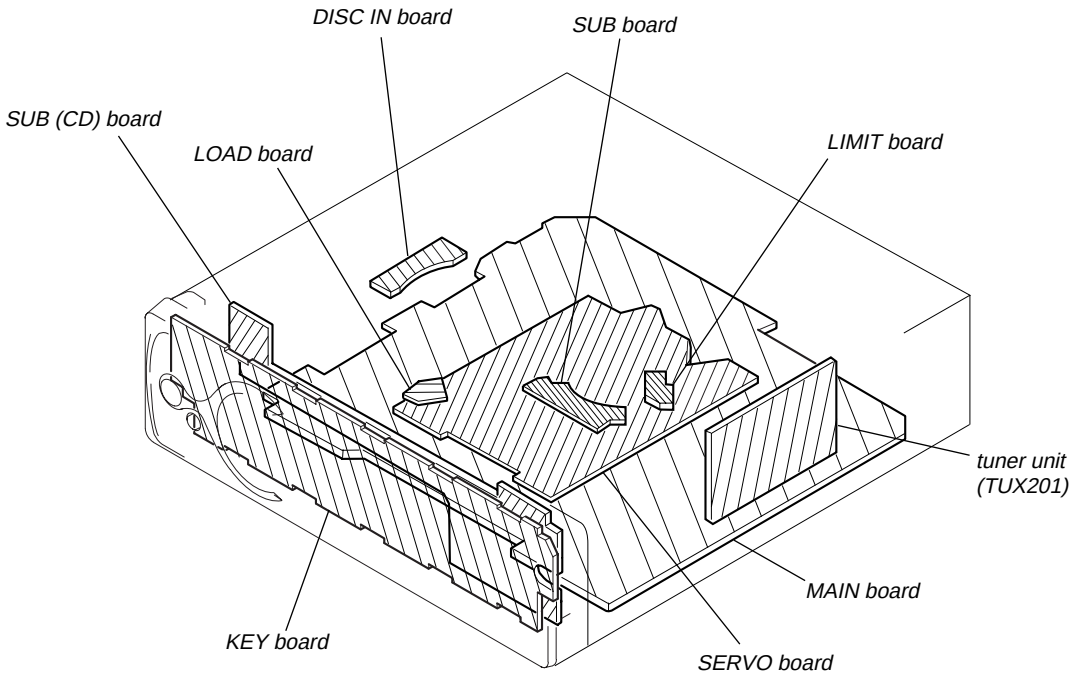
Pin No.	Pin Name	I/O	Pin Description
114 to 116	—	O	Not used. (Open)
117	$\overline{\text{ACCIN}}$	I	ACC power detection signal input “L”: ACC on
118	—	O	Not used. (Open)
119	VSS	—	Ground pin
120	CD TSTB	O	Servo IC CD text parameter storob signal output to servo IC (IC1)

• IC701 HD64F2398A04FWV (SUB SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	PG3	O	Spectrum analyzer data clock signal output to electronic volume (IC301)
2	PG4	O	Not used. (Open)
3	VSS	—	Ground pin
4	NC	—	Not used. (Open)
5	VCC	—	Power supply pin (+5 V)
6 to 9	PC0 to PC3	O	Not used. (Open)
10	VSS	—	Ground pin
11 to 14	PC4 to PC7	O	Not used. (Open)
15 to 18	PB0 to PB3	O	Not used. (Open)
19	VSS	—	Ground pin
20 to 23	PB4 to PB7	O	Not used. (Open)
24 to 27	PA0 to PA3	O	Not used. (Open)
28	VSS	—	Ground pin
29 to 32	PA4/IRQ4 to PA7/IRQ7	O	Not used. (Open)
33	SA EN	I	Spectrum analyzer enable signal input from system control (IC501)
34	BU IN	I	Back up power signal input from bus interface (IC601)
35, 36	VSS	—	Ground pin
37	P65/IRQ1	O	Not used. (Open)
38	BUS ON	I	Bus on signal input from system control (IC501)
39	VCC	—	Power supply pin (+5 V)
40 to 43	PE0 to PE3	O	Not used. (Open)
44	VSS	—	Ground pin
45 to 48	PE4 to PE7	O	Not used. (Open)
49	—	O	Not used. (Open)
50	LINK OFF	O	Link off signal output
51	PD2	O	Not used. (Open)
52	ILL ON	O	Illumination power control signal output
53	VSS	—	Ground pin
54, 55	—	O	Not used. (Open)
56	PD6	O	Not used. (Open)
57	$\overline{\text{BOOT}}$	I	Flash write mode detection signal input from system control (IC501)
58	VCC	—	Power supply pin (+5 V)
59	NC	O	Not used. (Open)
60	TX/LCD DATA	O	Flash write data signal output/LCD driver data signal output
61	SP SI	O	Not used. (Open)
62	RX/DOOR SW	I	Flash write data signal input/Door switch detection signal input
63	L RST	O	Reset signal output
64	LCD SCK	O	LCD driver clock signal output
65	VSS	—	Ground pin
66	LCD CEI	O	LCD driver chip enable signal output
67, 68	VSS	—	Ground pin
69 to 71	(NCO)	O	Not used. (Open)
72 to 79	P27 to P20	O	Not used. (Open)
80	VCL	—	Connect to external capacitor
81	$\overline{\text{RST}}$	I	Reset signal input
82	NMI	I	Non-maskable interruption signal input
83	STBY (H)	—	Standby mode pin
84	VCC	—	Power supply pin (+5 V)
85	XTAL	—	Crystal oscillator connection pin (18.432 MHz)
86	EXTAL	—	Crystal oscillator connection pin (18.432 MHz)
87	VSS	—	Ground pin
88	PF7	O	Not used. (Open)

Pin No.	Pin Name	I/O	Pin Description
89	VCC	—	Power supply pin (+5 V)
90	PF6 OPEN	—	Not used. (Open)
91 to 96	PF5 to PF0	O	Not used. (Open)
97	UNI SO	O	SONY bus data signal output
98	UNI SI	I	SONY bus data signal input
99, 100	VSS	—	Ground pin
101	UNI SCK	I	SONY bus clock signal input
102	NCO	O	Not used. (Open)
103	AVCC	—	Power supply pin for A/D, D/A converter
104	VREF	—	Reference voltage input for A/D, D/A converter
105 to 110	A40/AN0 to A45/AN5	I	Not used. (Connect to ground in this set.)
111	P46/AN6/DA0	I	Not used. (Connect to ground in this set.)
112	P47/AN7/DA1	I	Spectrum analyzer data signal input from electronic volume (IC301)
113	AVSS	—	Ground pin for A/D, D/A converter
114	VSS	—	Ground pin
115 to 122	P17 to P10	O	Not used. (Open)
123 to 125	MD0 to MD2	—	Mode pin
126 to 128	PG0 to PG2	O	Not used. (Open)

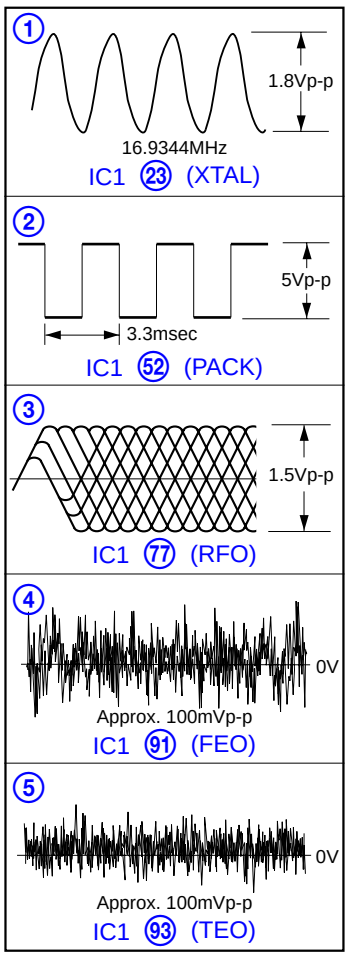
3-2. CIRCUIT BOARDS LOCATION



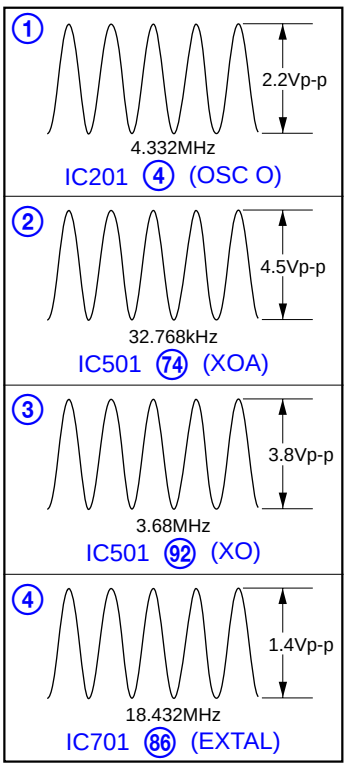
• Waveforms

— Servo Board —

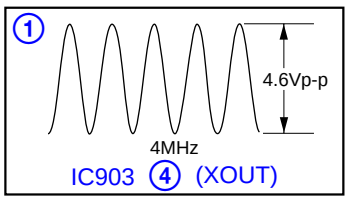
(MODE: CD PLAY)



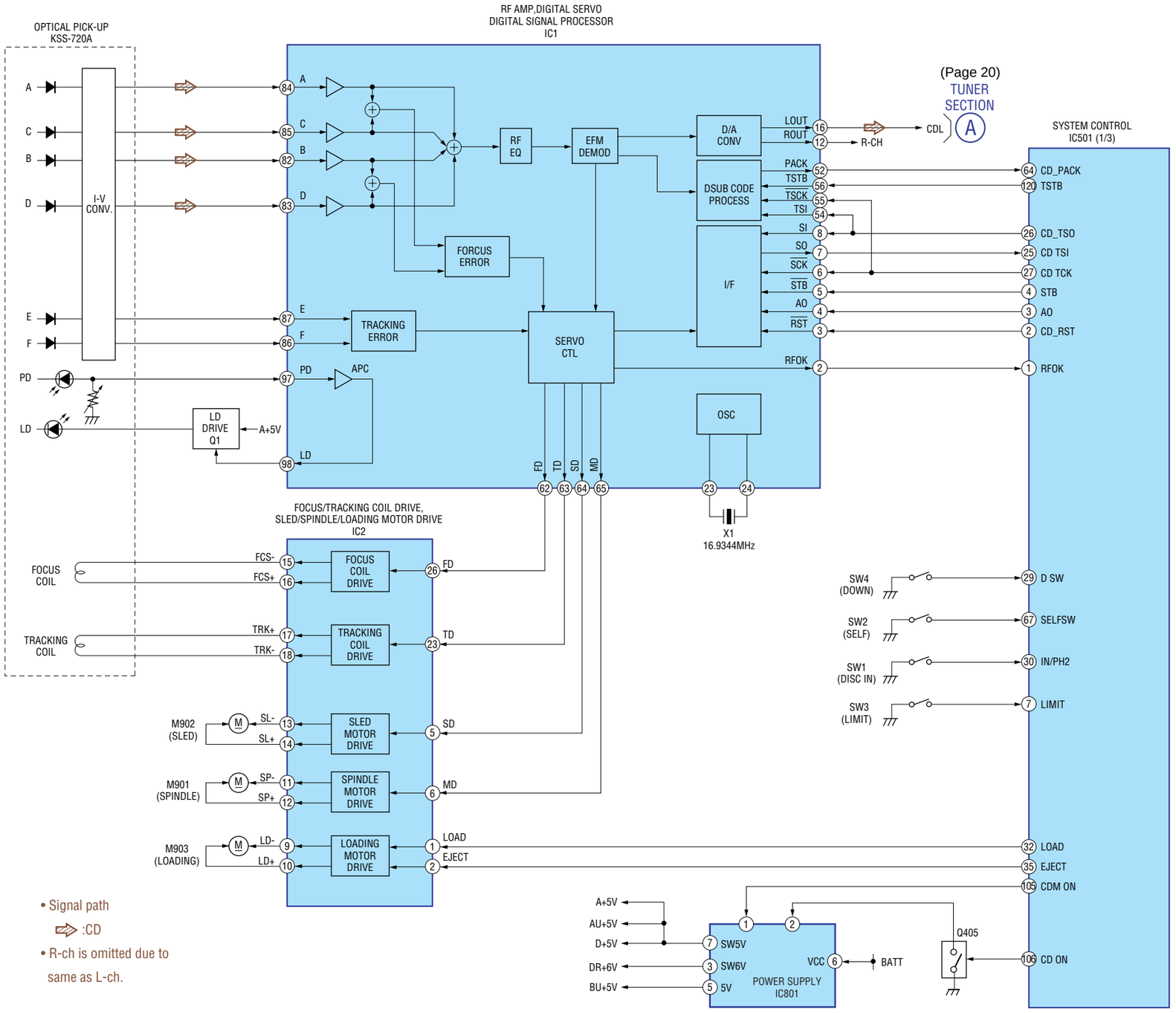
— Main Board —



— Key Board —

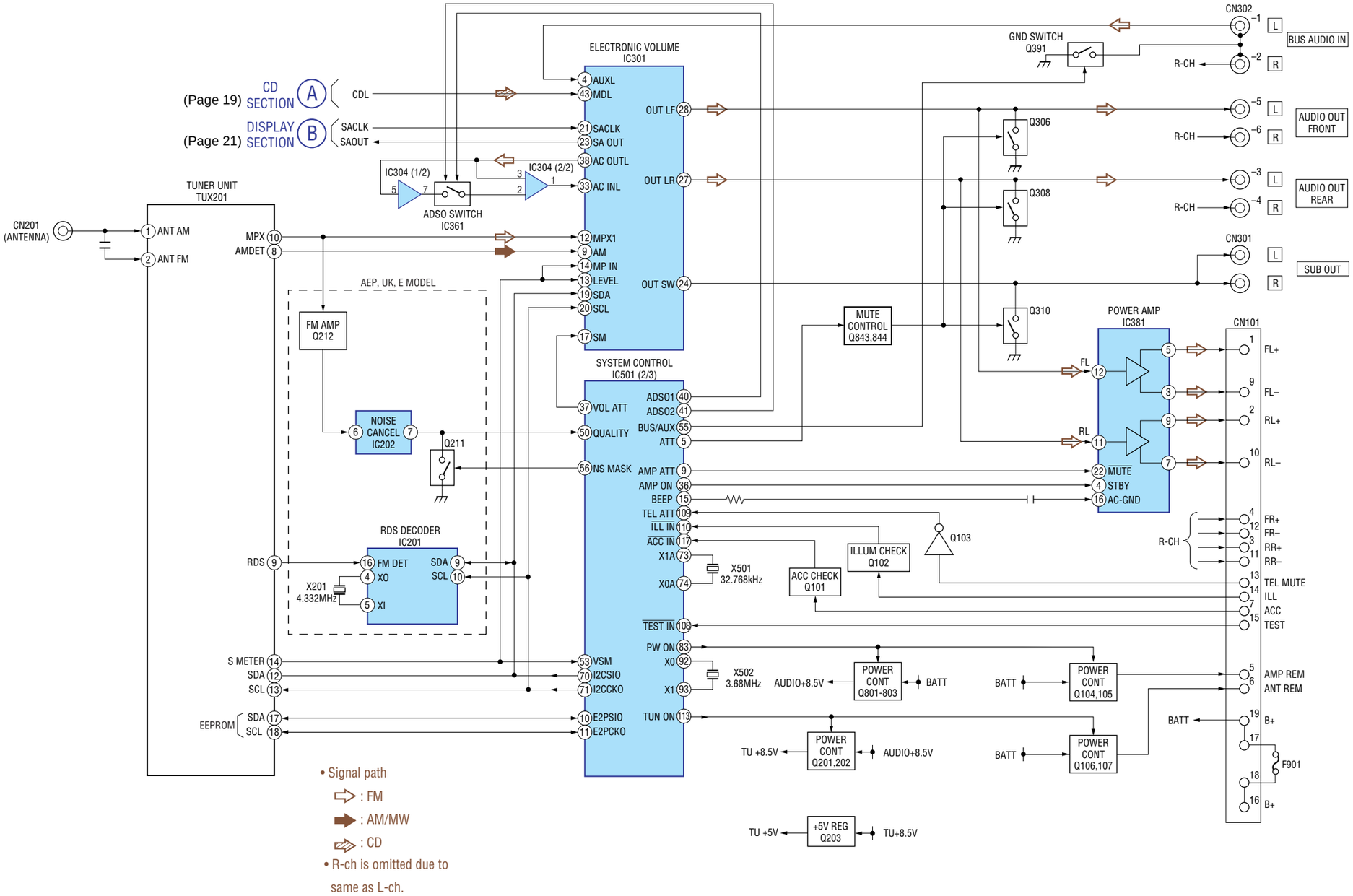


3-3. BLOCK DIAGRAM — CD SECTION —



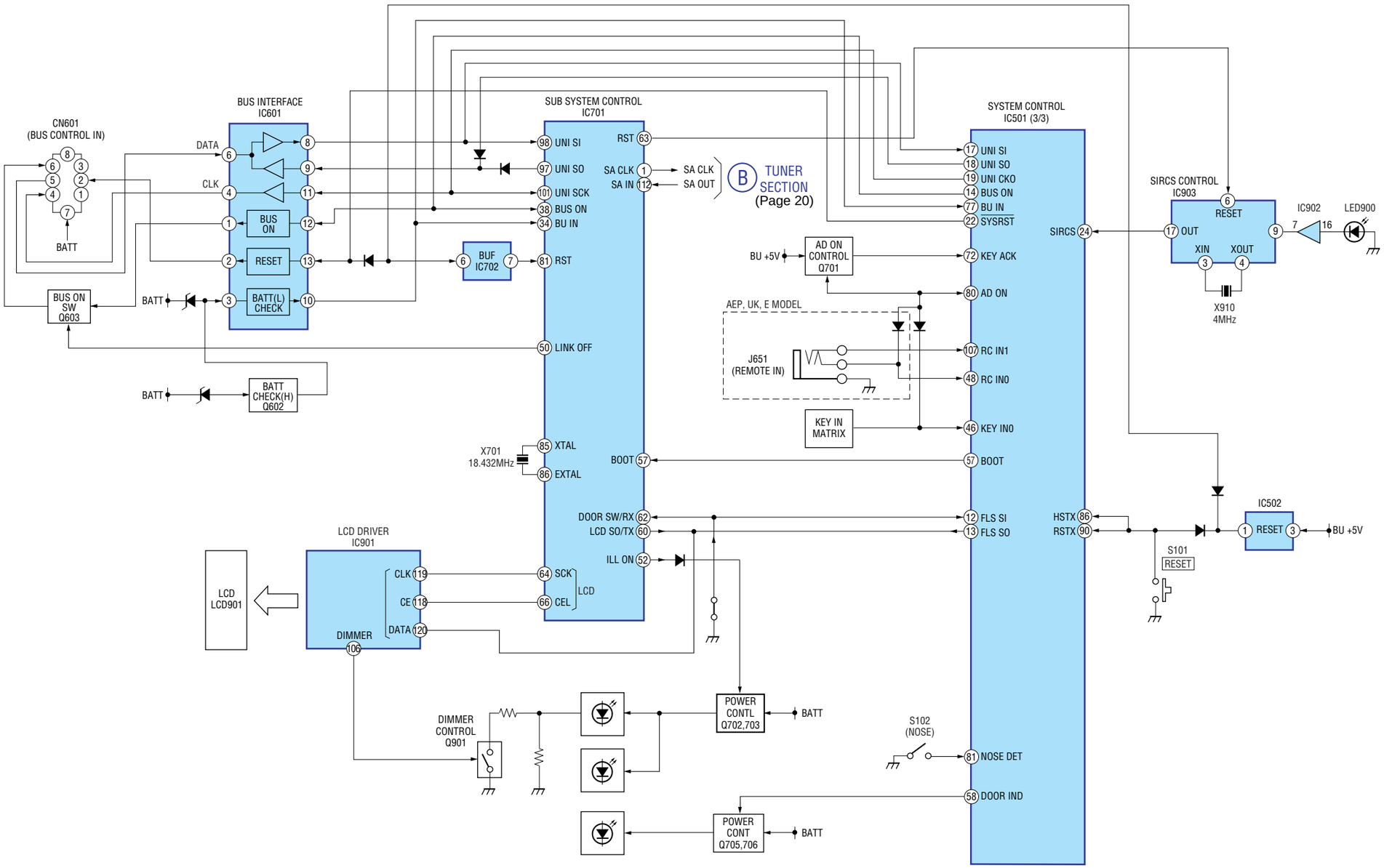
- Signal path
  ⇨ :CD
- R-ch is omitted due to same as L-ch.

3-4. BLOCK DIAGRAM — TUNER SECTION —



• Signal path
: FM
: AM/MW
: CD
• R-ch is omitted due to same as L-ch.

3-5. BLOCK DIAGRAM — DISPLAY SECTION —



3-6. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 18 for Circuit Boards Location.

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

for schematic diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ➡ : AM/MW/LW
  - ⇨ : CD
- Abbreviation
  CND : Canadian model.

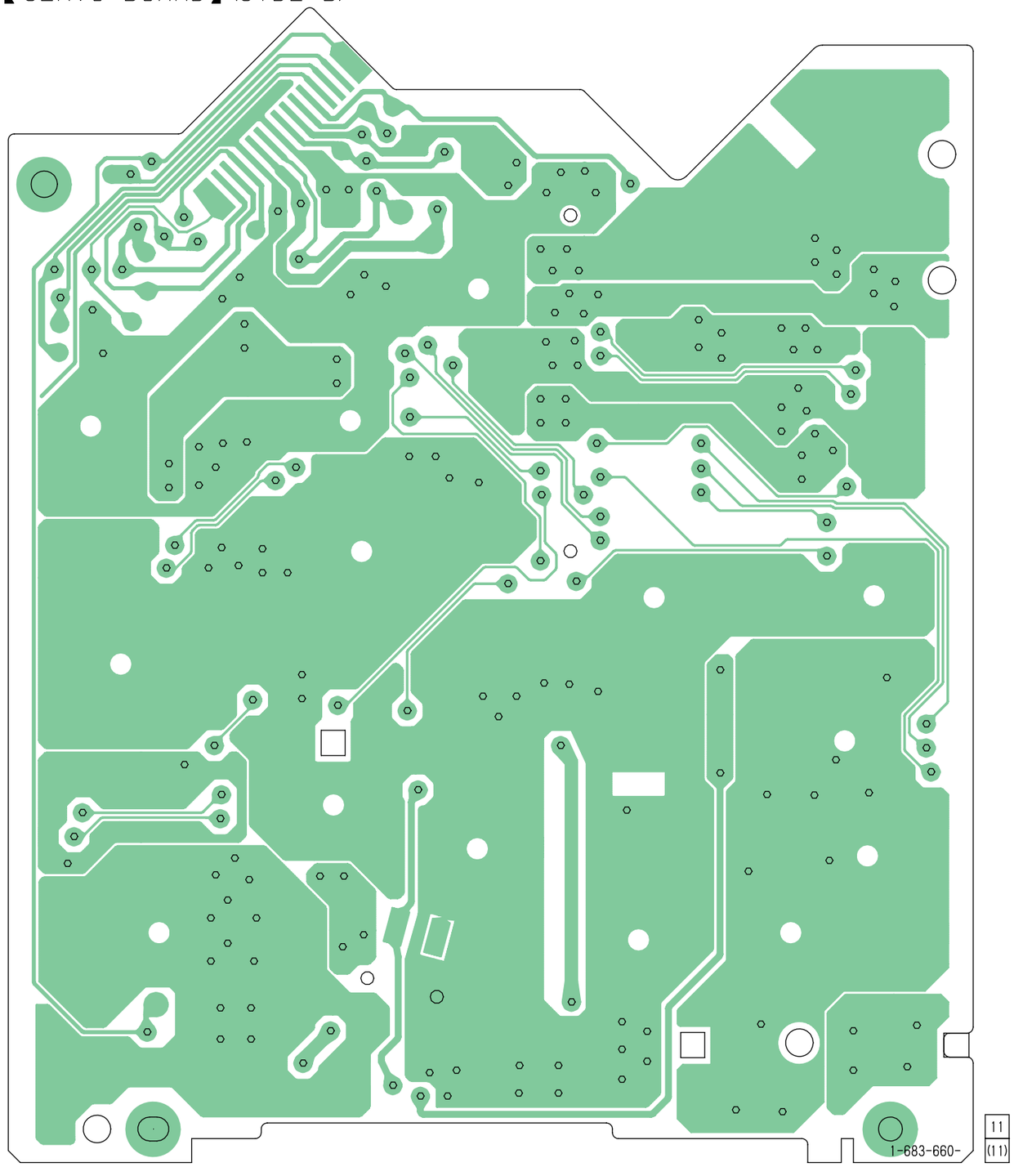
for printed wiring boards:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  CND : Canadian model.

【SERVO BOARD】(SIDE B)



【SERVO BOARD】(SIDE A)

【PICK-UP FLEXIBLE BOARD】 1-683-666- 11

OPTICAL PICK-UP KSS-720A

- **Semiconductor Location**

Ref. No.	Location
IC1	E-7
IC2	H-7
Q1	C-6

A MAIN BOARD CN401 (Page 31)

【DISC IN BOARD】

SW1 (DISC IN)

SW2 (SELF)

BLK
WHT
RED

1-659-836- 11 (12)

【LIMIT BOARD】

SW3 (LIMIT)

BLU
BLU

1-659-835- 12 (12)

【LOAD BOARD】

SW4 (DOWN)

BLU
BLU

1-659-837- 11 (12)

【SUB BOARD】

CN1

YEL
BLU
BLU
WHT
RED
BLK

1-659-834- 11 (12)

M902 (SLED)

M901 (SPINDLE)

M903 (LOADING)

RED
WHT

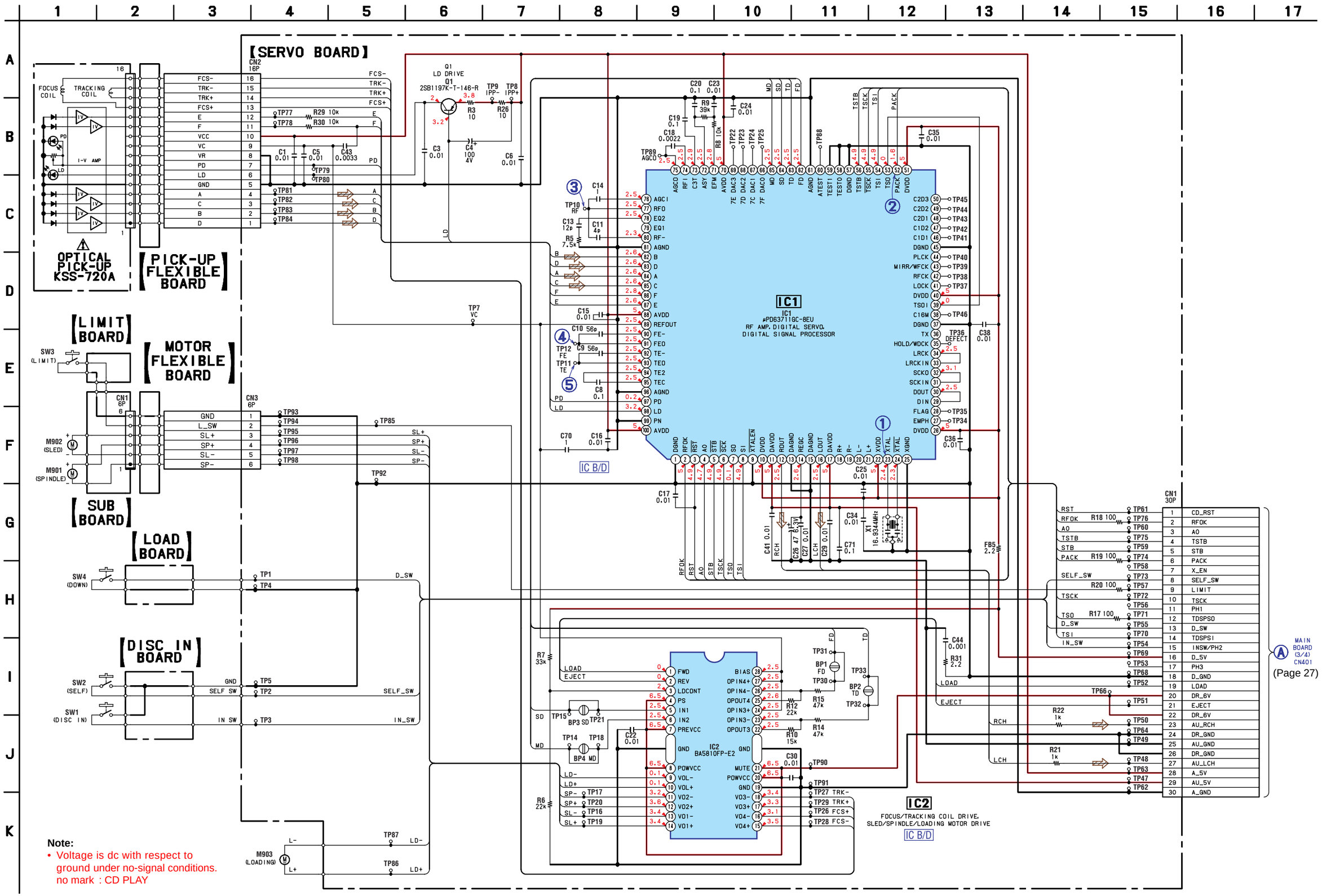
BLU
BLK
BLU
RED
WHT

1-683-660- 11 (11)

【MOTOR FLEXIBLE BOARD】 1-683-665- 11

3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION —

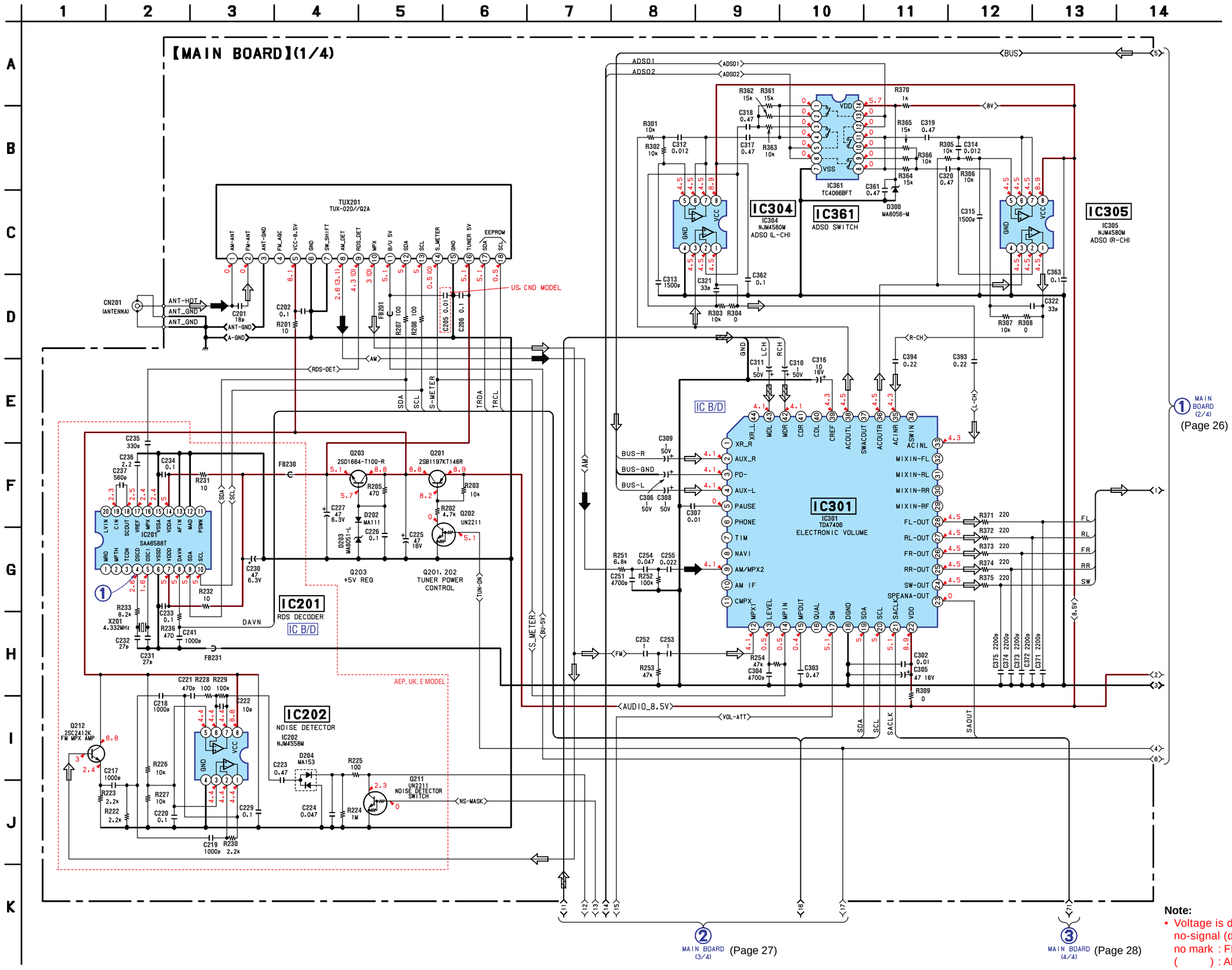
• Refer to page 18 for Waveforms.
• Refer to page 34 for IC Block Diagrams.



Note:
- Voltage is dc with respect to ground under no-signal conditions.
  no mark : CD PLAY

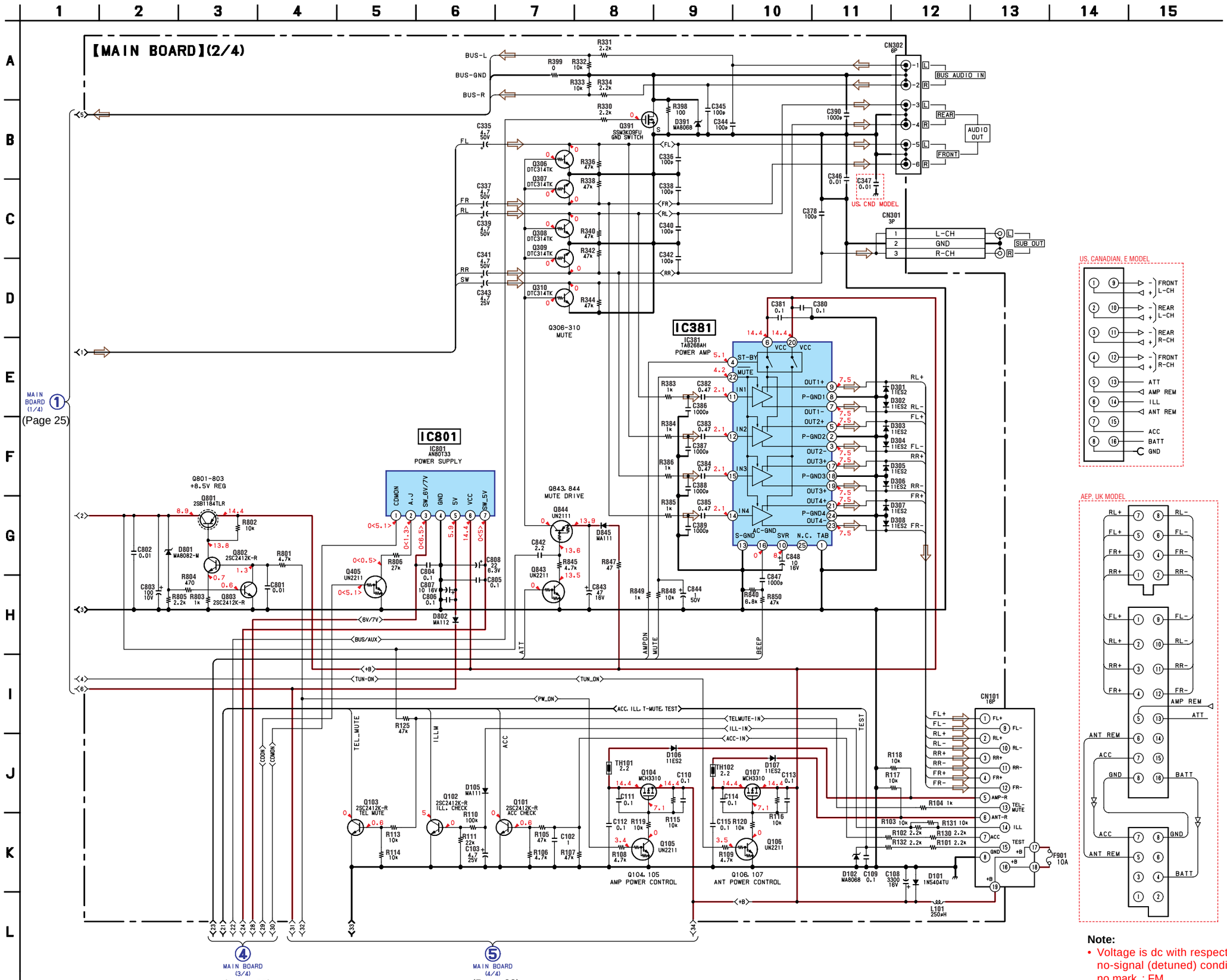
3-8. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) —

- Refer to page 18 for Waveform.
- Refer to page 34 for IC Block Diagrams.



Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM/MW/LW

3-9. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) —



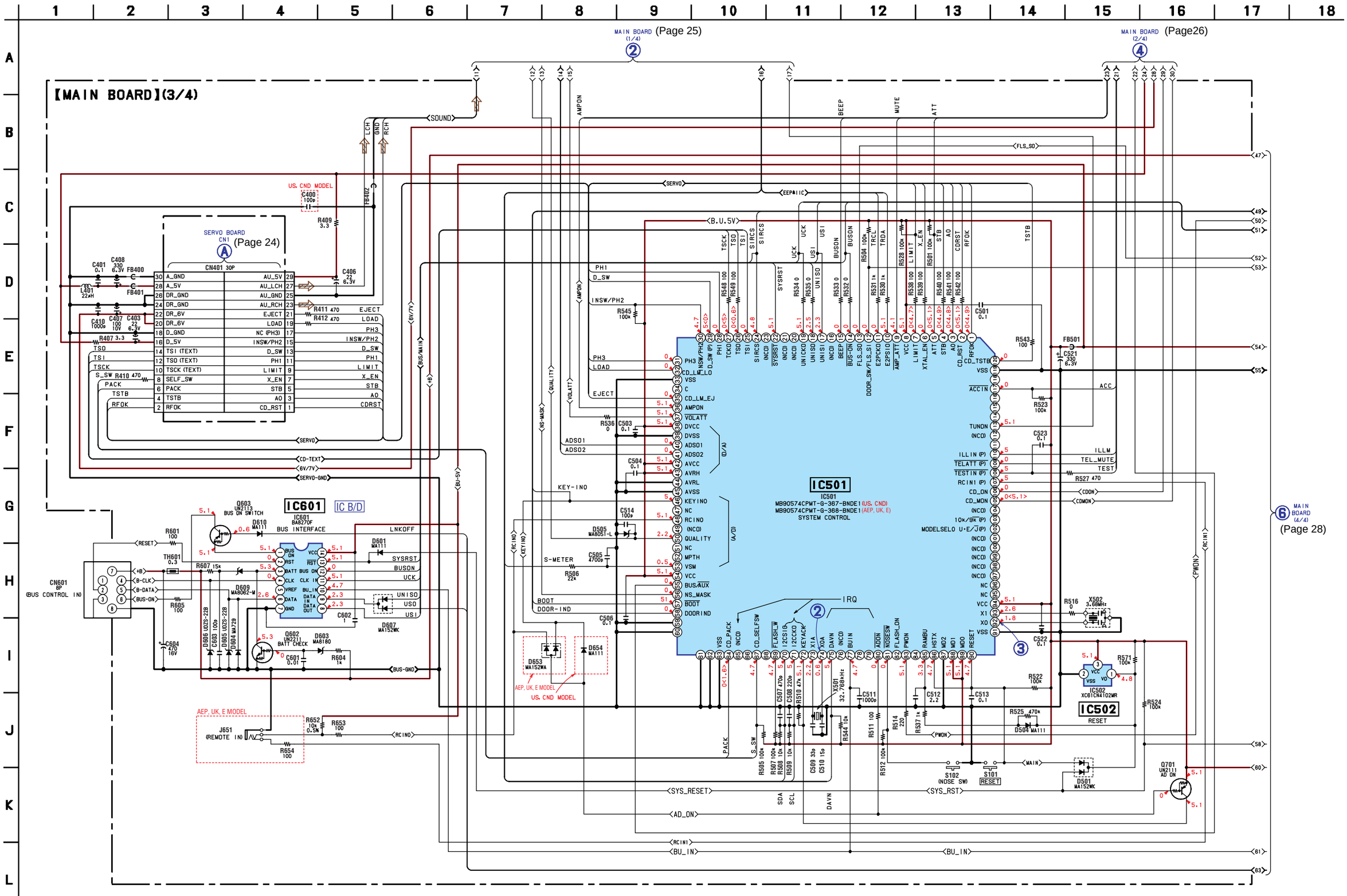
Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM/MW/LW
  < > : CD PLAY

• Refer to page 18 for Waveforms.

3-10. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) —

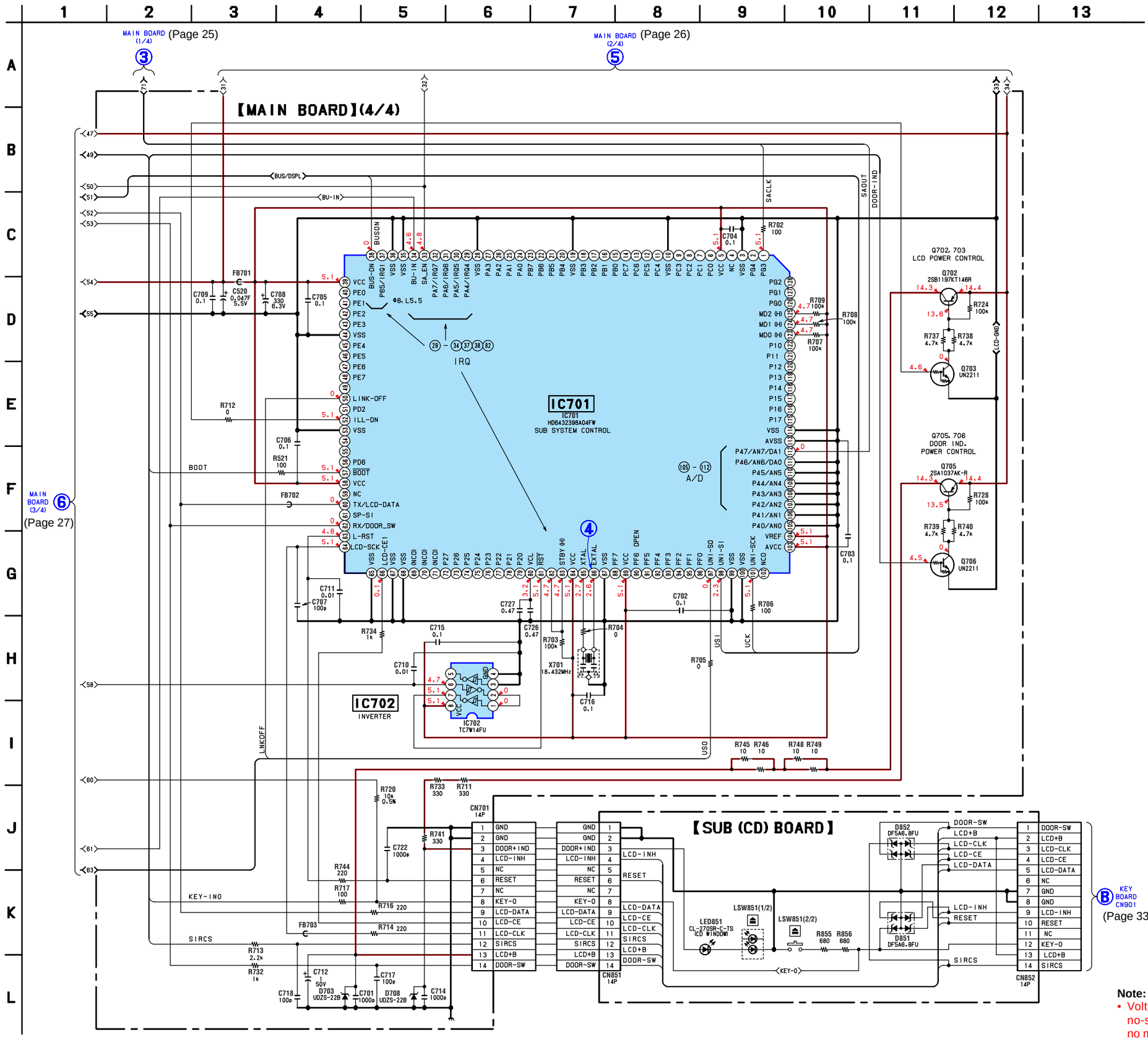
• Refer to page 36 for IC Block Diagram.



Note:

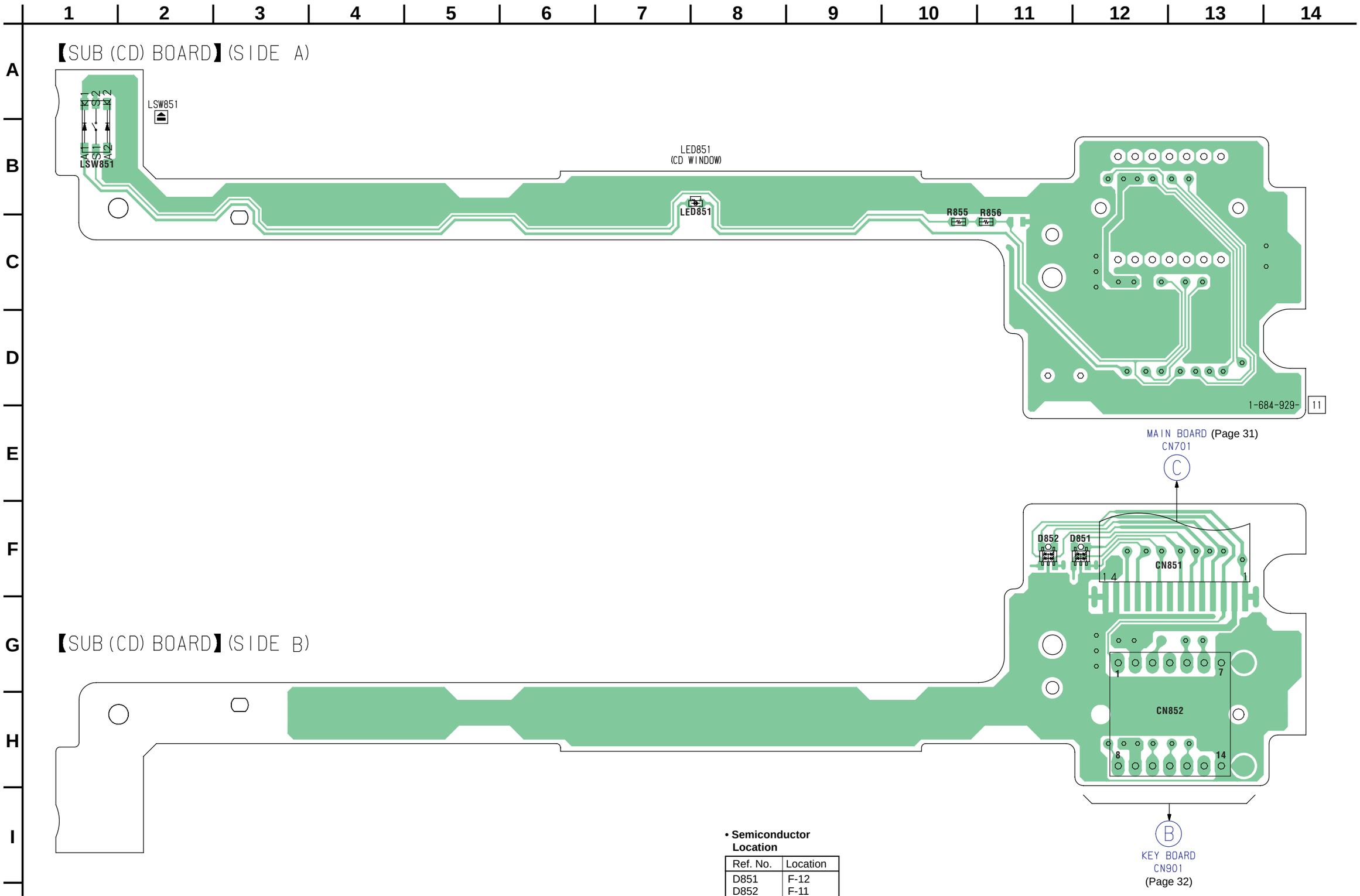
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM/MW/LW
  < > : CD PLAY

3-11. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) — • Refer to page 18 for Waveform.



Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

3-12. PRINTED WIRING BOARD — RELAY SECTION — • Refer to page 18 for Circuit Boards Location.

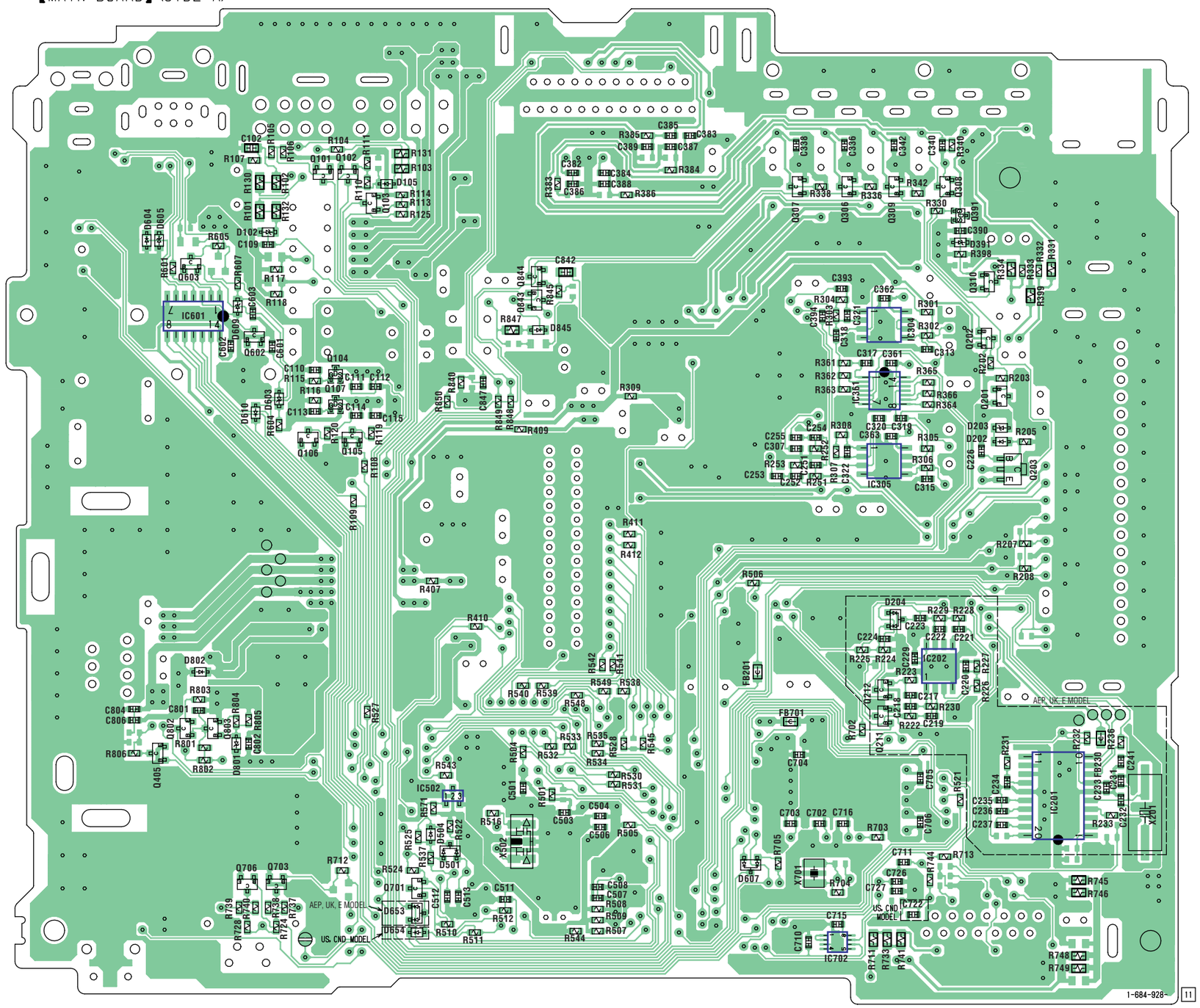


• **Semiconductor Location**

Ref. No.	Location
D851	F-12
D852	F-11
LED851	B-8

3-13. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 18 for Circuit Boards Location.

【MAIN BOARD】(SIDE A)

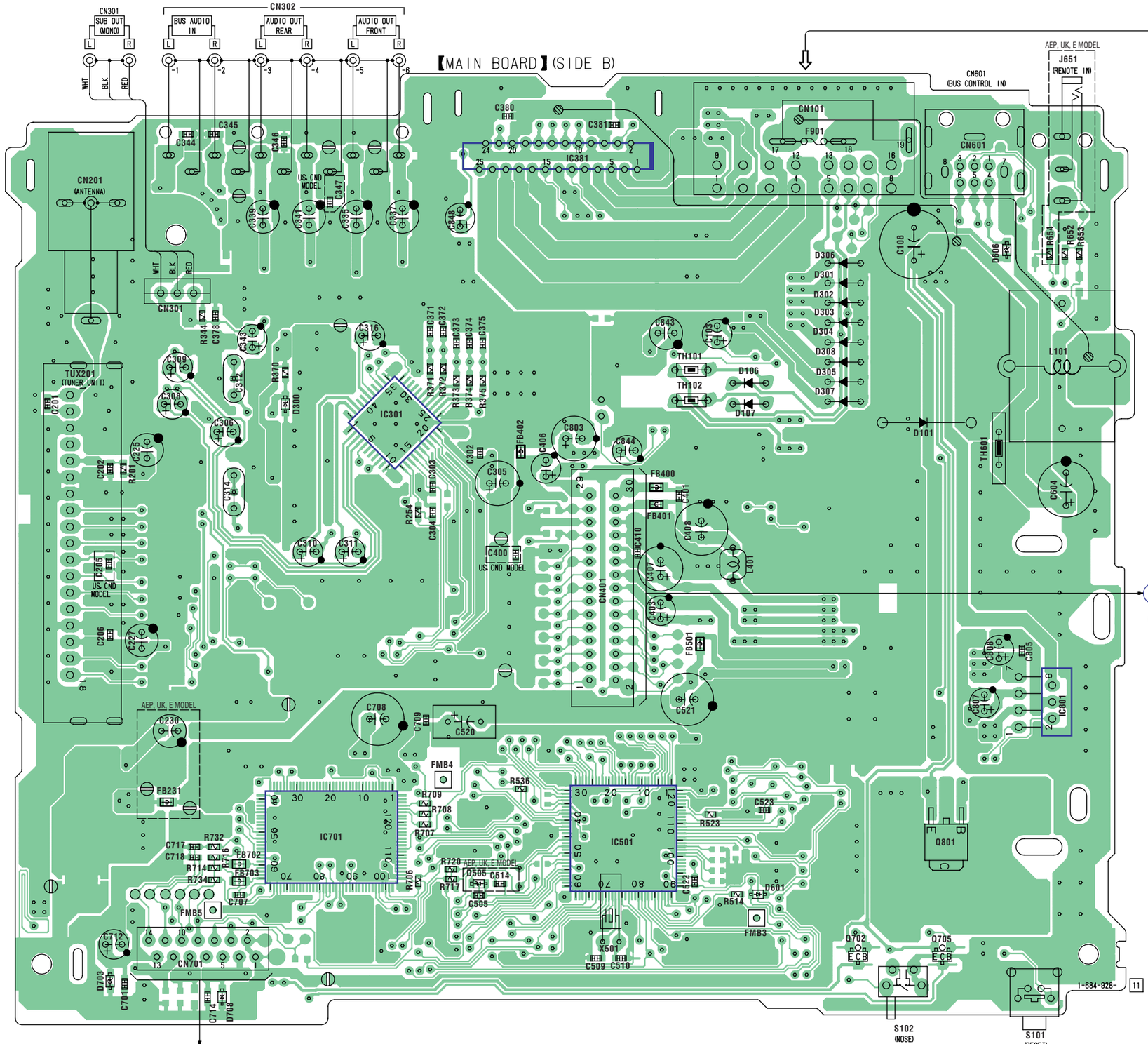


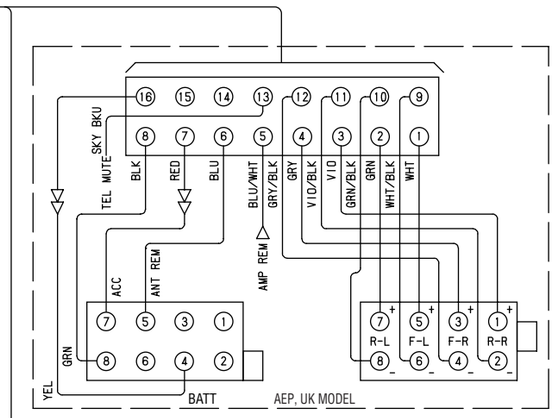
• **Semiconductor Location**

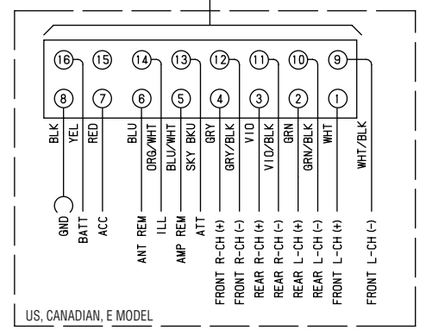
Ref. No.	Location	Ref. No.	Location
(D101)	D-9	IC305	E-3
D102	C-9	IC361	E-3
D105	C-7	(IC381)	B-6
(D106)	D-7	(IC501)	H-6
(D107)	D-7	IC502	H-7
D202	E-2	IC601	D-9
D203	E-2	(IC701)	H-4
D204	F-3	IC702	I-4
(D300)	D-3	(IC801)	G-10
(D301)	C-8		
(D302)	C-8	Q101	C-8
(D303)	C-8	Q102	C-8
(D304)	D-8	Q103	C-7
(D305)	D-8	Q104	D-8
(D306)	C-8	Q105	E-8
(D307)	D-8	Q106	E-8
(D308)	D-8	Q107	E-8
D391	C-3	Q201	E-2
D501	H-7	Q202	D-2
D504	H-7	Q203	E-2
(D505)	H-5	Q211	G-3
(D601)	H-7	Q212	G-3
D603	E-8	Q306	C-4
D604	C-9	Q307	C-4
D605	C-9	Q308	C-3
(D606)	C-9	Q309	C-3
D607	I-4	Q310	D-2
D609	D-9	Q391	C-3
D610	E-9	Q405	H-9
D653	I-7	Q602	D-9
D654	I-7	Q603	D-9
(D703)	I-2	Q701	I-7
(D708)	I-3	(Q702)	I-8
D801	H-9	Q703	I-8
D802	G-9	(Q705)	I-9
D845	D-6	Q706	I-9
		(Q801)	H-9
IC201	H-2	Q802	G-9
IC202	G-3	Q803	G-9
(IC301)	D-4	Q843	D-6
IC304	D-3	Q844	D-6

( ): SIDE B

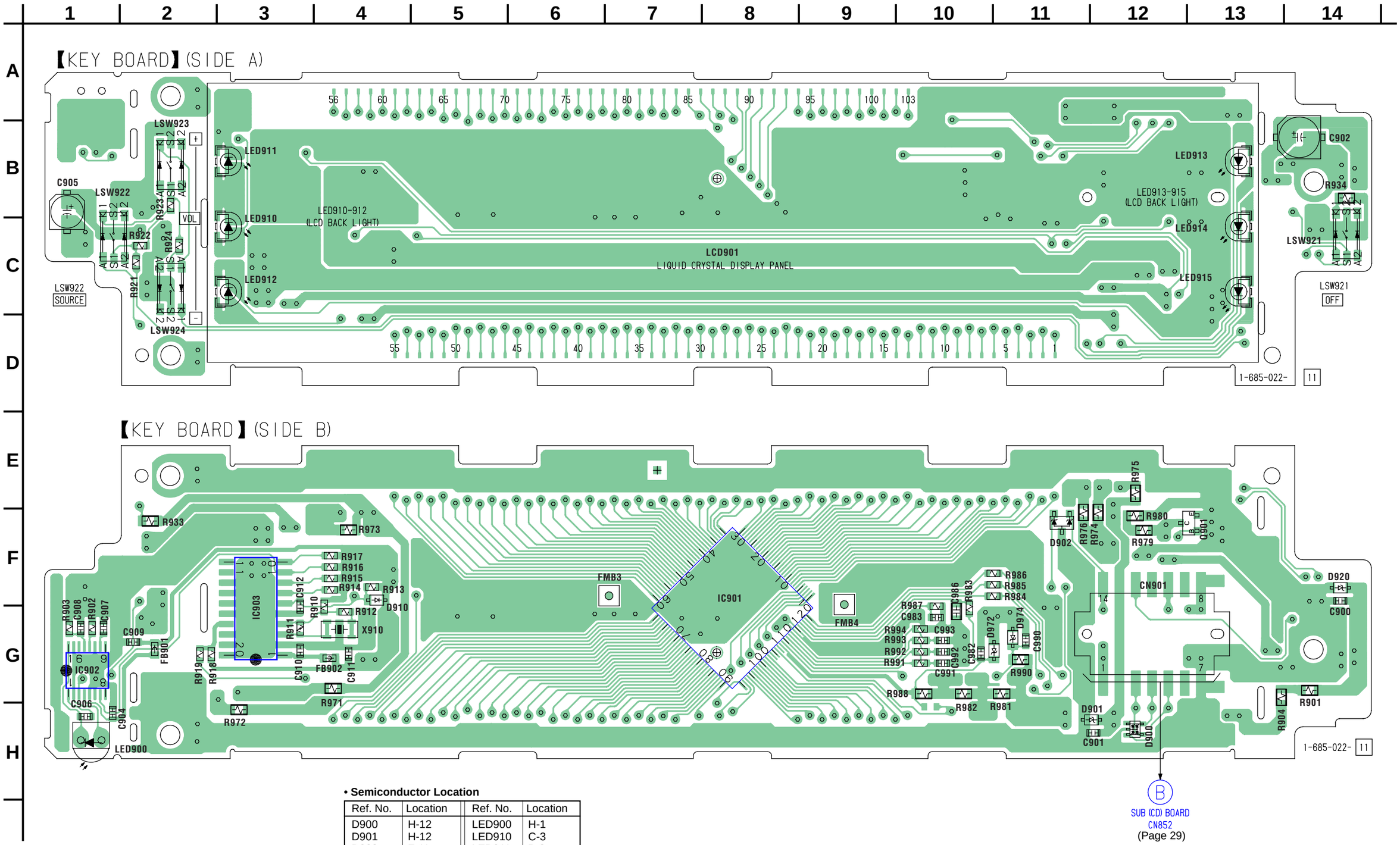
【MAIN BOARD】(SIDE B)







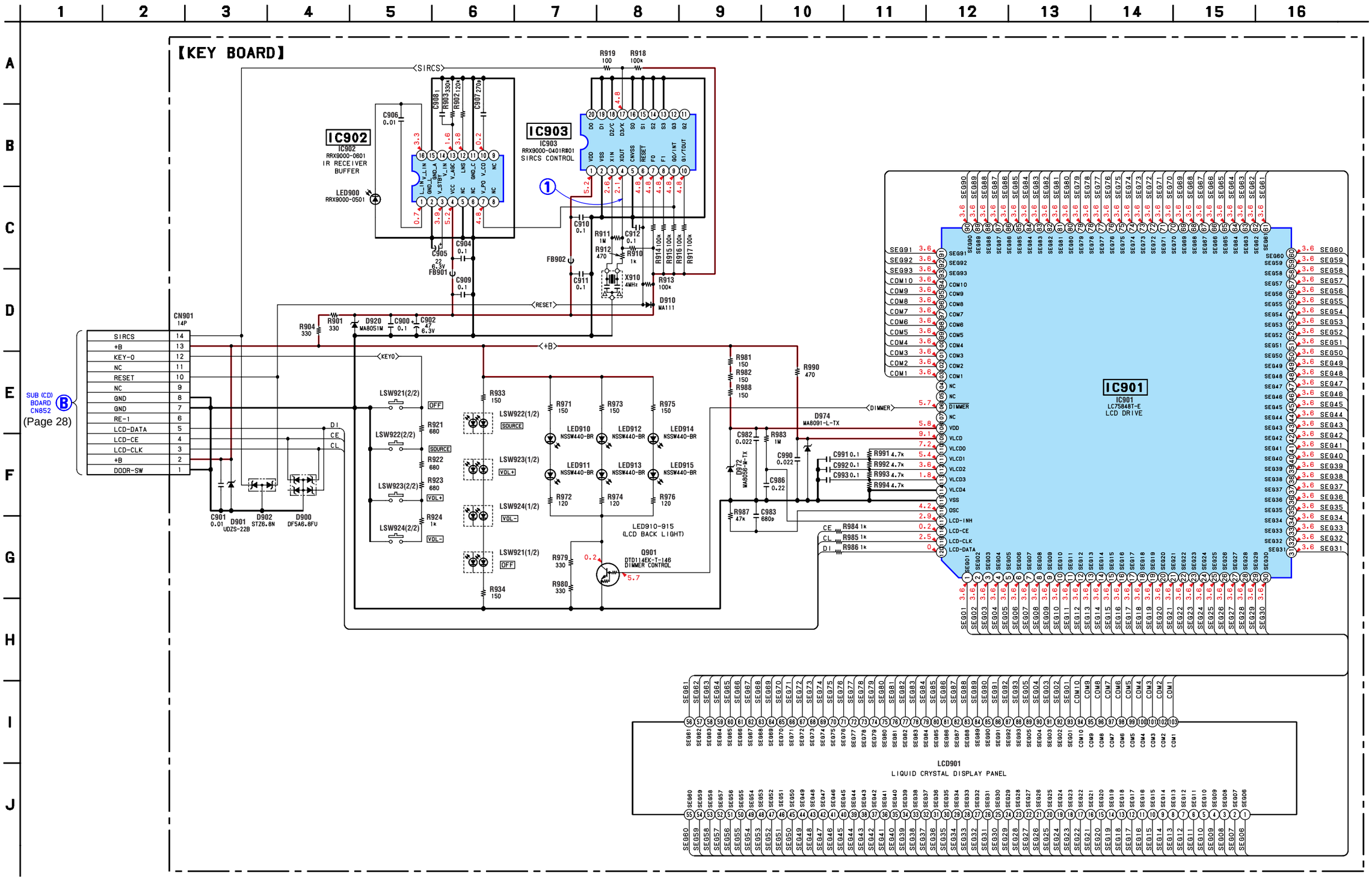
3-14. PRINTED WIRING BOARD — KEY SECTION — • Refer to page 18 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D900	H-12	LED900	H-1
D901	H-12	LED910	C-3
D902	F-11	LED911	B-3
D910	F-4	LED912	C-3
D920	F-14	LED913	B-13
D972	G-10	LED914	C-13
D974	G-11	LED915	C-13
IC901	F-8	Q901	F-13
IC902	G-1		
IC903	G-3		

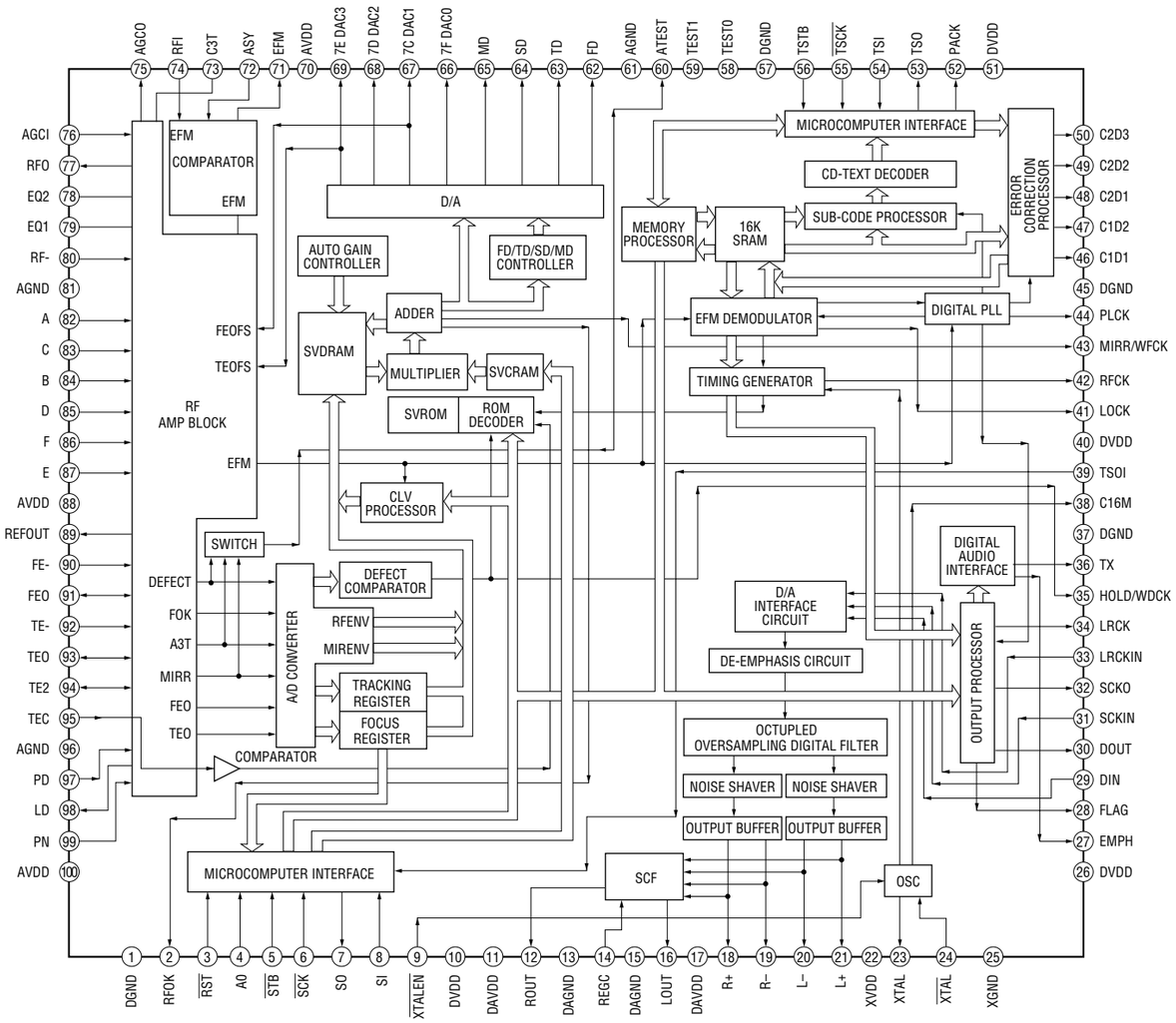
3-15. SCHEMATIC DIAGRAM — KEY SECTION — • Refer to page 18 for Waveform.



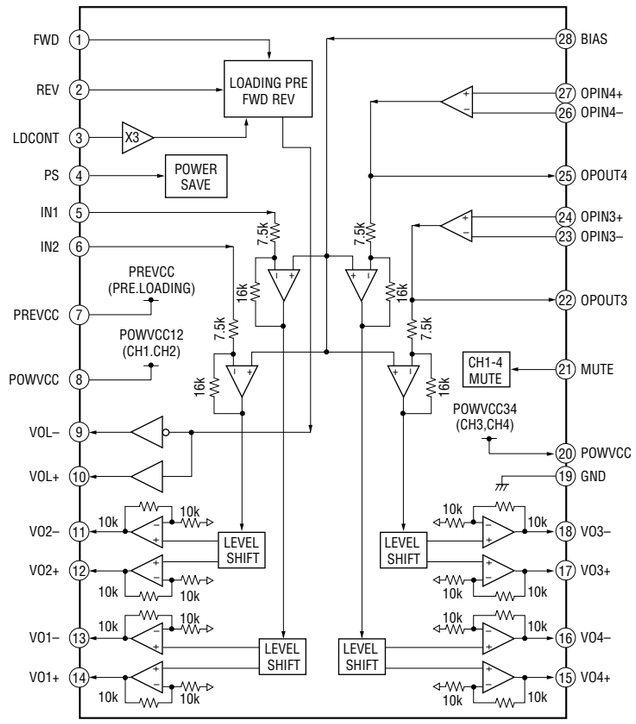
Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

• IC BLOCK DIAGRAMS

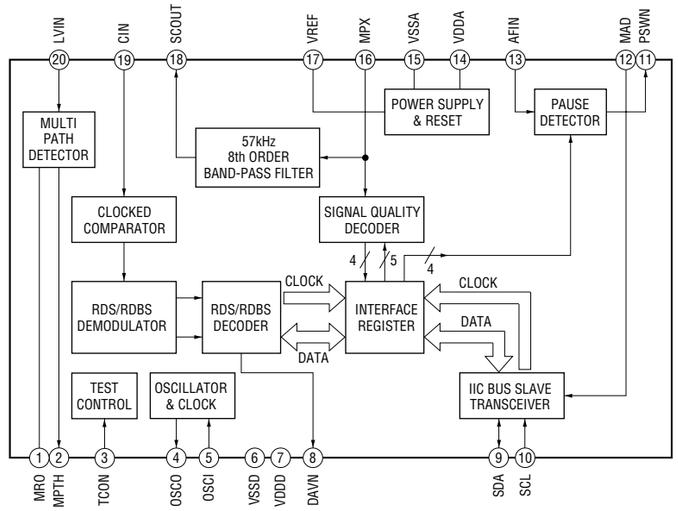
IC1 µPD63711GC-8EU



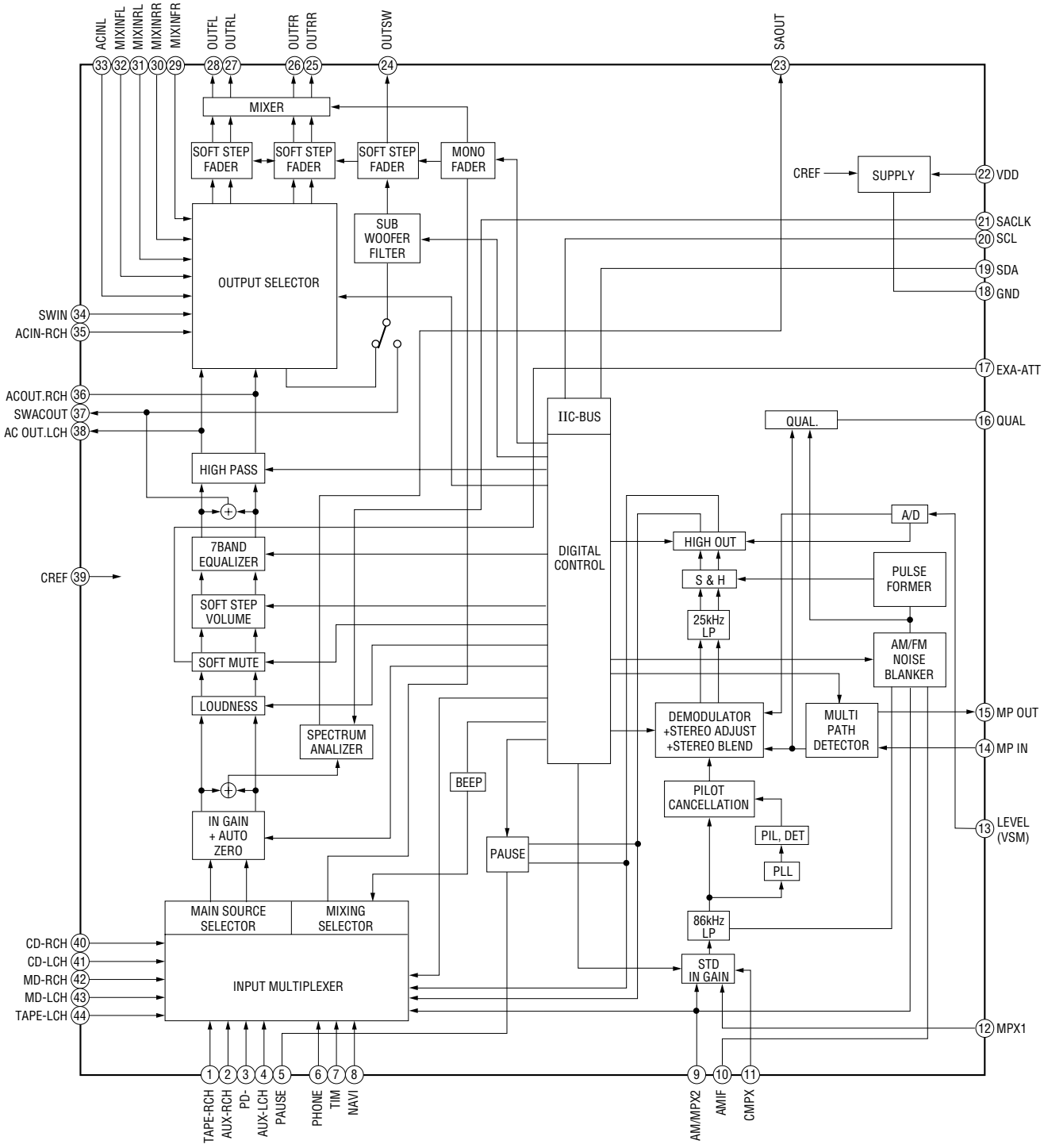
IC2 BA5810FP-E2



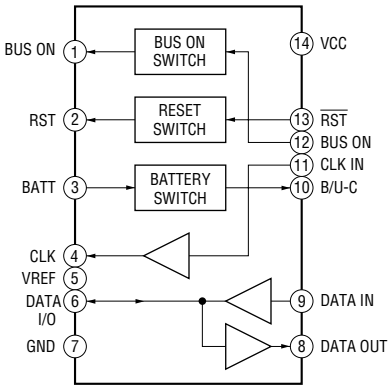
IC201 SAA6588T



IC301 TDA7406



IC601 BA8270F



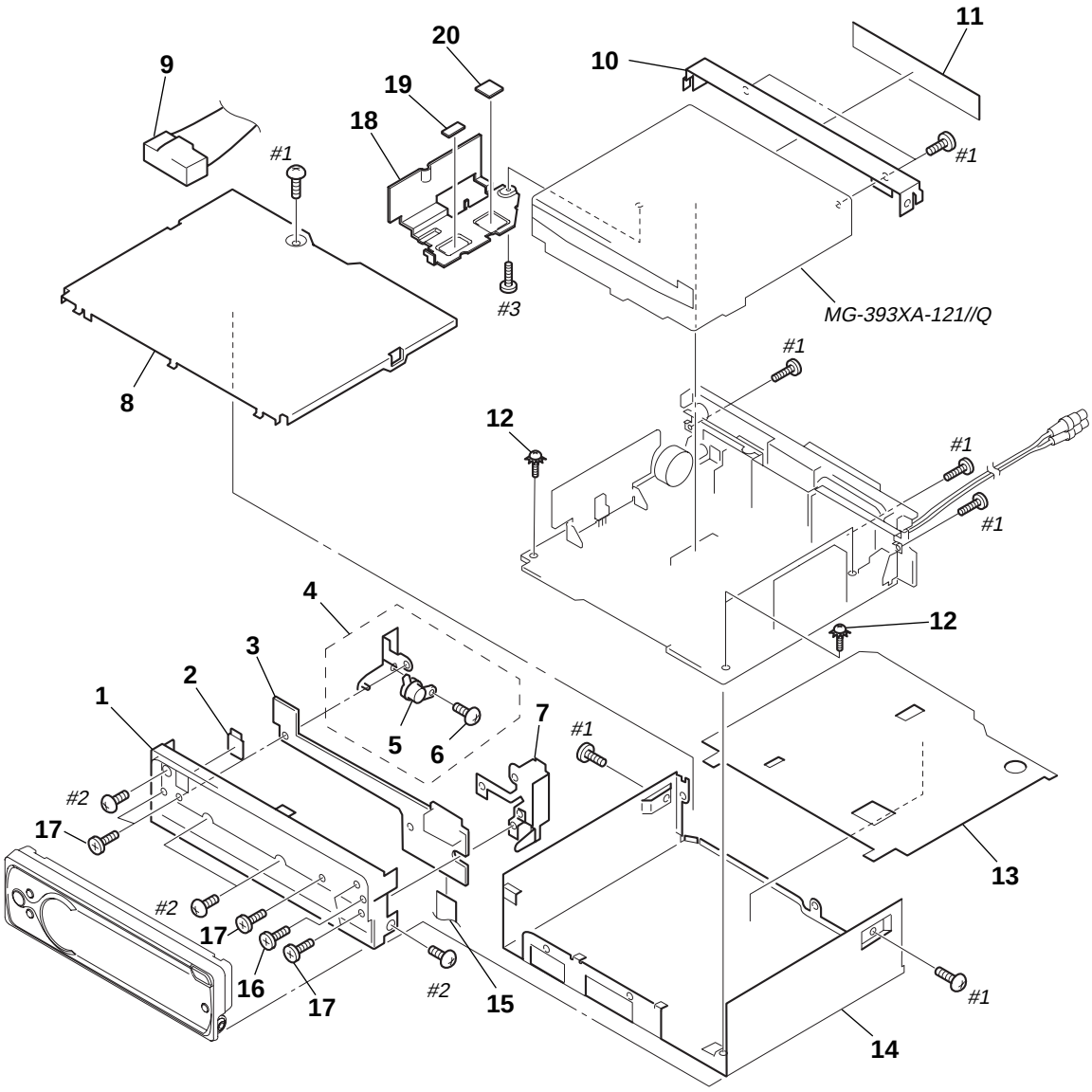
SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories are given in the last of this parts list.
- Abbreviation
  CND: Canadian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

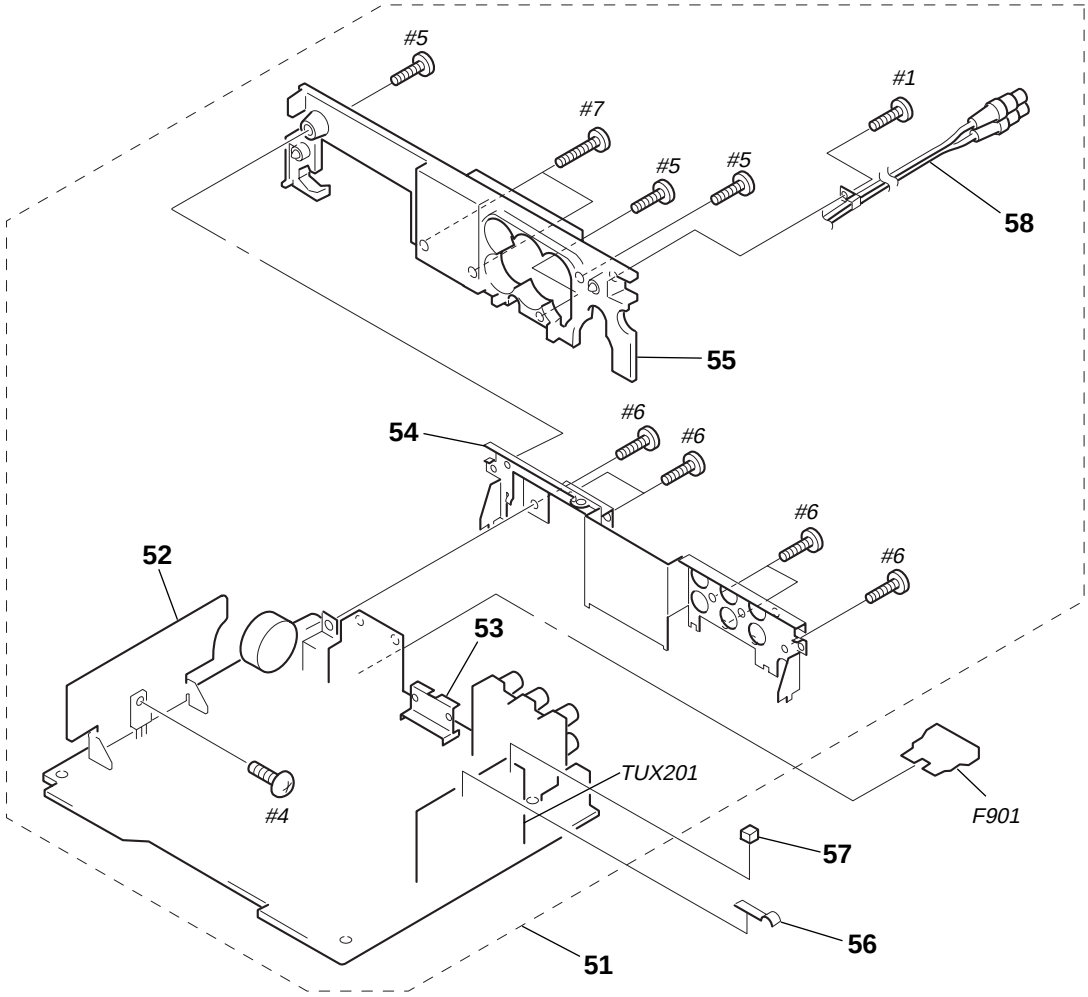
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

4-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	X-3381-275-1	PANEL ASSY, SUB	
2	3-040-990-01	BUTTON (EJECT)	
3	1-684-929-11	SUB (CD) BOARD	
4	X-3376-699-6	GEAR ASSY	
5	3-030-909-03	DAMPER, OIL	
6	3-713-786-51	SCREW +P 2X3	
7	X-3377-621-8	LOCK ASSY	
8	3-223-782-21	COVER	
9	1-776-207-72	CORD (WITH CONNECTOR) (POWER) (US,CND,E)	
9	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER) (AEP,UK)	
10	3-041-012-11	BRACKET (CD)	
* 11	3-227-287-01	SHEET, DUST PROTECTION	
12	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
* 13	3-224-755-01	SHEET, INSULATING	
14	3-223-781-21	CHASSIS	
15	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE) (CN851)	
16	3-047-812-01	SCREW (LOCK)	
17	3-042-244-01	SCREW (T)	
18	3-240-185-01	HEAT SINK (MG393)	
19	3-046-626-01	SHEET, RADIATION	
20	3-240-187-01	SHEET, RADIATION	
#1	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#3	7-685-853-04	SCREW +BVTT 2X6 (S)	

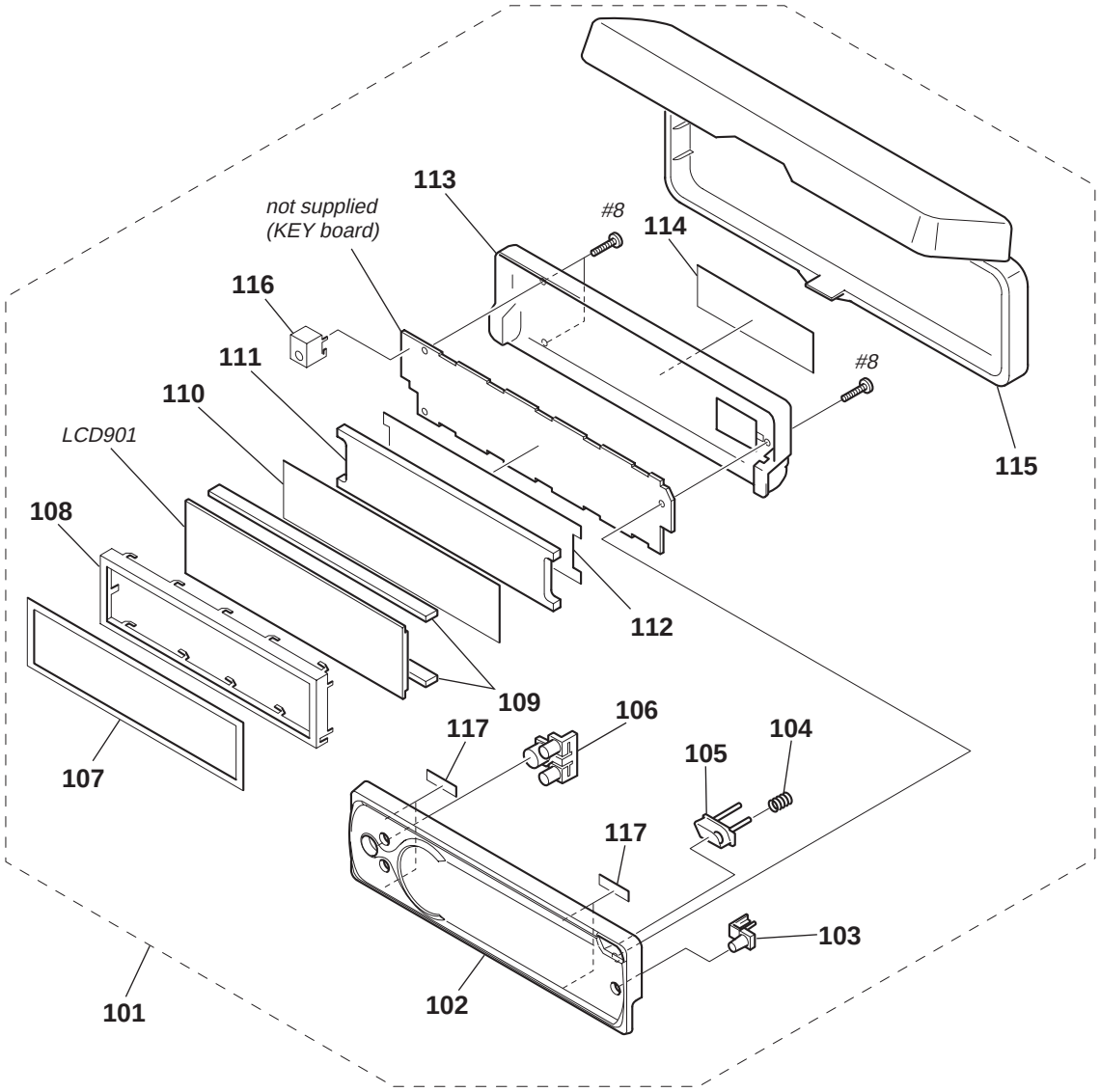
4-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
51	A-3274-217-A	MAIN BOARD, COMPLETE (AEP,UK,E)	
51	A-3274-218-A	MAIN BOARD, COMPLETE (US,CND)	
52	3-240-186-01	HEAT SINK (REG)	
* 53	3-040-998-01	BRACKET (IC)	
* 54	3-223-783-21	CHASSIS (BACK)	
* 55	3-223-780-11	HEAT SINK (AEP,UK,E)	
* 55	3-223-780-21	HEAT SINK (US,CND)	
* 56	3-045-878-01	PLATE (TU), GROUND	
* 57	3-045-877-02	CUSHION (TU)	

Ref. No.	Part No.	Description	Remark
58	1-790-355-54	CORD (WITH CONNECTOR) (RCA) (SUB OUT (MONO))	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TUX201	A-3220-812-A	TUNER UNIT (TUX-020)	
#1	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#6	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#7	7-685-797-09	SCREW +PTT 2.6X16 (S)	

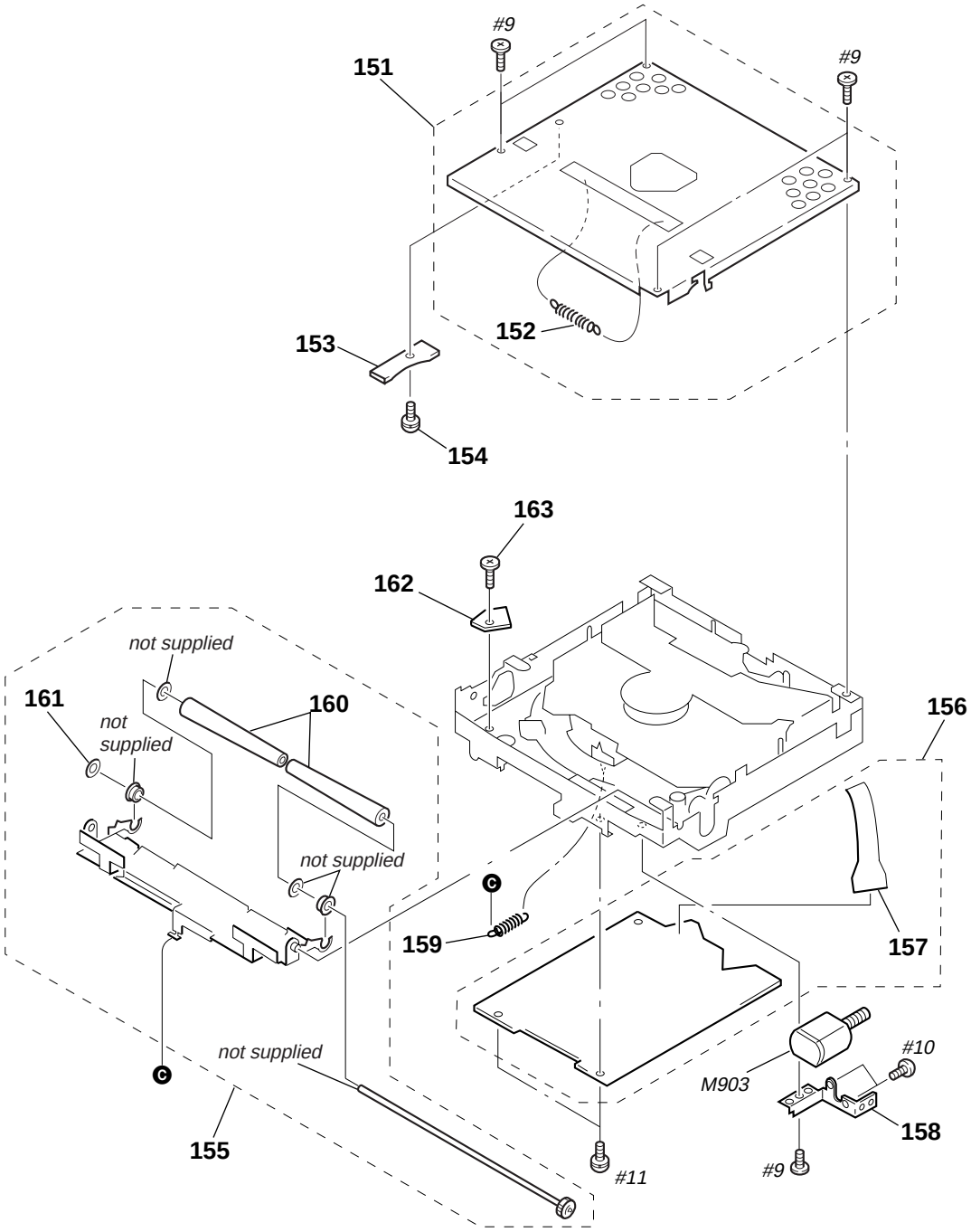
4-3. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	A-3290-857-A	PANEL COMPLETE ASSY, FRONT (AEP,UK,E)	
101	A-3290-866-A	PANEL COMPLETE ASSY, FRONT (US,CND)	
102	X-3381-919-1	PANEL ASSY, FRONT	
103	X-3381-895-1	BUTTON (OFF) ASSY	
104	3-037-267-01	SPRING (OPEN)	
105	3-240-181-01	BUTTON (OPEN)	
106	X-3381-894-1	BUTTON (SOURCE) ASSY	
107	3-240-896-01	CUSHION (WINDOW)	
108	3-240-182-01	PLATE (LCD), GROUND	
109	1-694-906-11	CONDUCTIVE BOARD, CONNECTION	
110	3-240-184-01	SHEET (ILLUMINATOR)	

Ref. No.	Part No.	Description	Remark
111	3-240-183-01	PLATE (LCD), LIGHT GUIDE	
112	3-242-548-01	SHEET (REFLECTOR)	
113	X-3381-893-1	PANEL ASSY, FRONT BACK	
114	3-240-188-01	PLATE (FBP), ORNAMENTAL (AEP,UK,E)	
114	3-240-188-11	PLATE (FBP), ORNAMENTAL (US,CND)	
115	X-3378-490-2	CASE (PANEL) ASSY (for FRONT PANEL)	
116	3-241-287-01	CASE (T), SHIELD	
117	3-242-829-01	CUSHION (SF)	
LCD901	1-804-654-11	DISPLAY PANEL, LIQUID CRYSTAL	
#8	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	

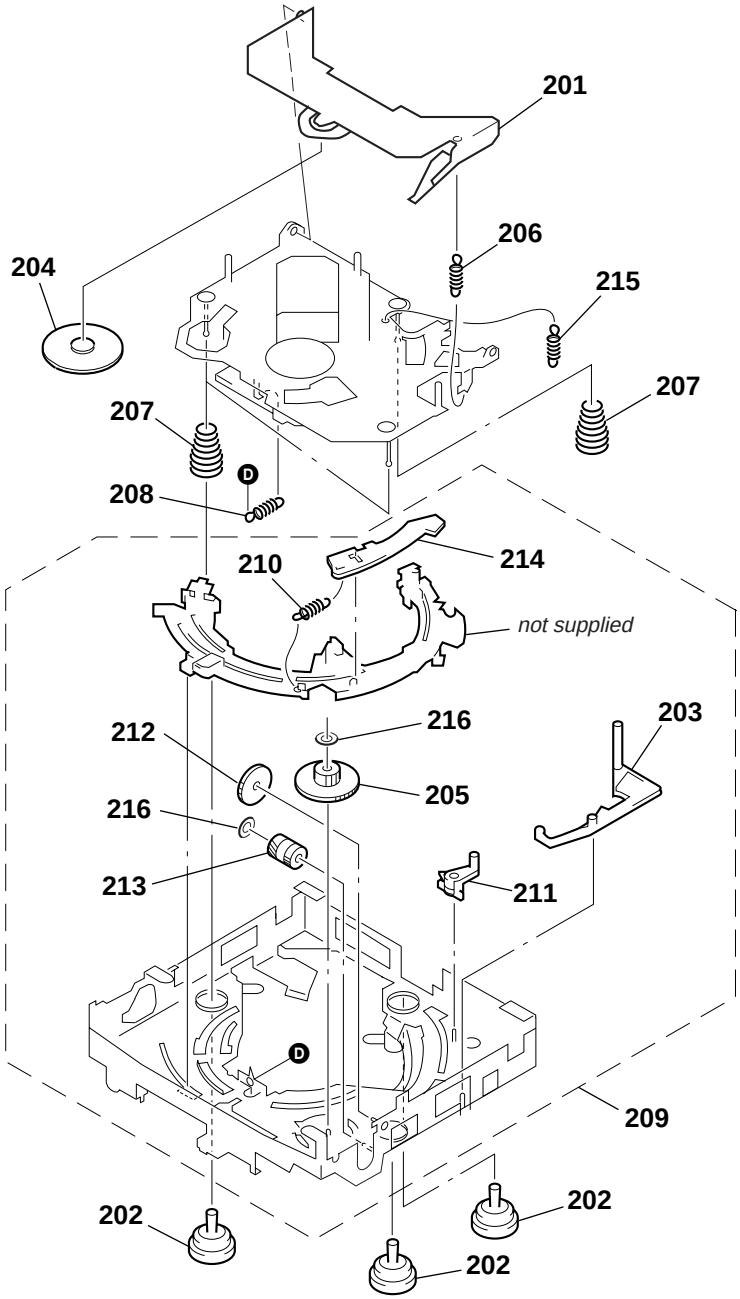
4-4. CD MECHANISM SECTION (1)
(MG-393XA-121//Q)



Ref. No.	Part No.	Description	Remark
151	A-3315-247-B	CHASSIS (T.U) ASSY	
152	3-931-909-01	SPRING (LR), TENSION	
153	1-659-836-11	DISC IN BOARD	
154	3-338-737-01	SCREW (2X3), +PS	
155	A-3315-040-A	ROLLER ASSY, ARM	
156	A-3283-270-A	SERVO BOARD, COMPLETE	
157	1-683-666-11	PICK-UP FLEXIBLE BOARD	
* 158	3-039-629-02	BRACKET (MOTOR)	
159	3-225-784-01	SPRING (RA3), TENSION	

Ref. No.	Part No.	Description	Remark
160	3-933-152-03	ROLLER (S)	
161	3-931-913-11	RING (ROLLER), RETAINING	
162	1-659-837-11	LOAD BOARD	
163	3-338-737-01	SCREW (2X3), +PS	
M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)	
#9	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3	
#10	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE3	
#11	7-628-253-00	SCREW +PS 2X4	

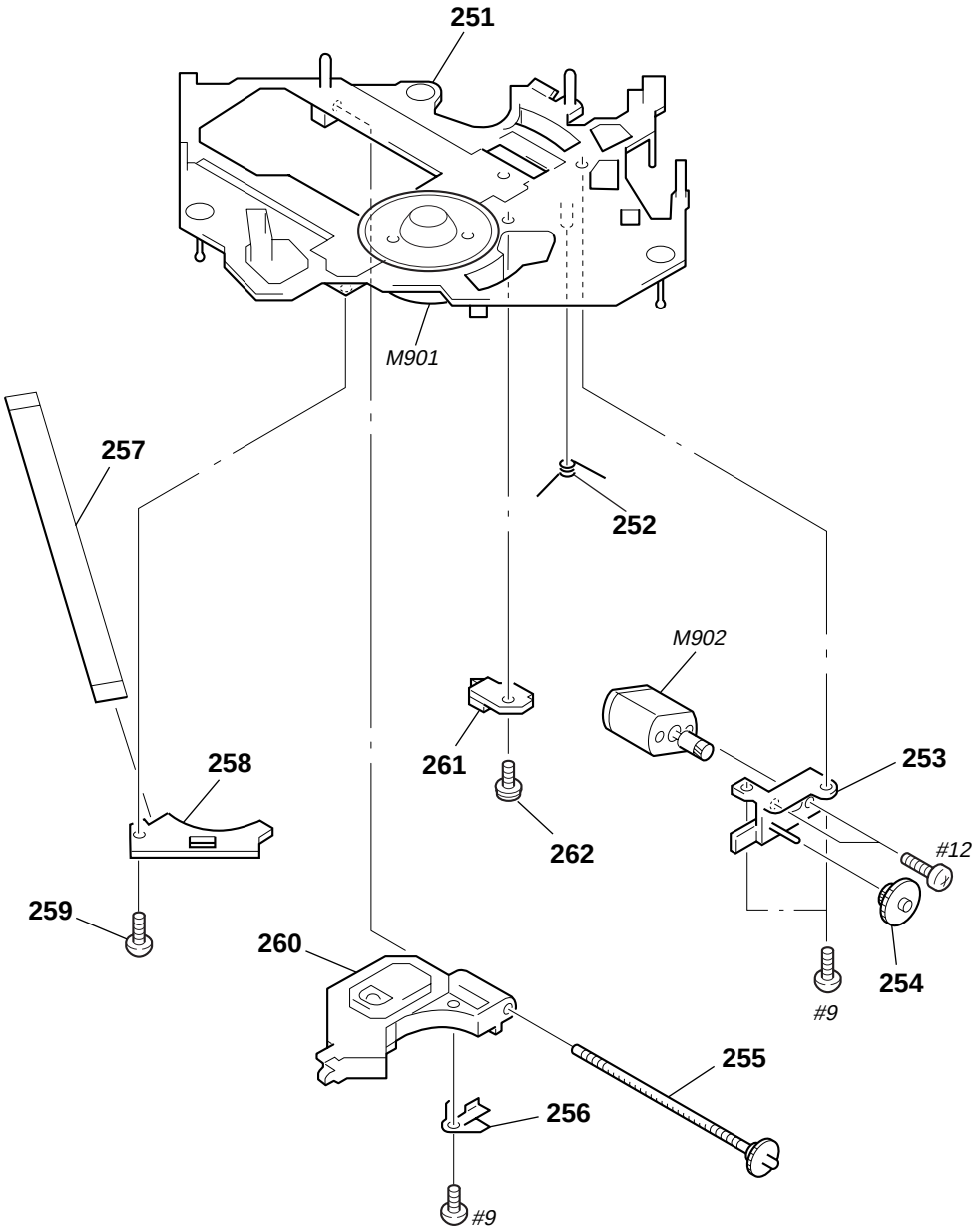
4-5. CD MECHANISM SECTION (2)
(MG-393XA-121//Q)



Ref. No.	Part No.	Description	Remark
201	X-3378-956-8	ARM ASSY, CHUCKING	
202	3-931-897-61	DAMPER (T)	
203	3-039-627-01	LEVER (D)	
204	3-040-165-02	RETAINER (DISC)	
205	3-014-727-01	WHEEL (LW), WORM	
206	3-931-895-01	SPRING (CH), TENSION	
207	3-931-898-01	SPRING (FL), COMPRESSION	
208	3-032-483-02	SPRING (KF1), TENSION	

Ref. No.	Part No.	Description	Remark
209	A-3315-243-D	CHASSIS (M) ASSY	
210	3-220-180-01	SPRING (TR2), TENSION	
211	3-931-881-03	LEVER (LOCK)	
212	3-931-882-02	GEAR (MDL)	
213	3-007-537-11	WHEEL (U), WORM	
214	3-039-626-01	LEVER (TR)	
215	3-032-484-01	SPRING (KR1), TENSION	
216	3-018-272-01	WASHER	

4-6. CD MECHANISM SECTION (3)
(MG-393XA-121//Q)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
251	X-3381-611-1	CHASSIS (OP) ASSY (including M901)	
252	3-043-494-01	SPRING (SL), TORSION	
253	3-040-170-01	BASE (DRIVING)	
254	3-040-419-01	GEAR (MIDWAY)	
255	A-3291-669-A	SHAFT (FEED) ASSY	
256	3-025-743-01	SPRING (FEED), LEAF	
257	1-659-880-11	MOTOR FLEXIBLE BOARD	
258	1-659-834-11	SUB BOARD	
259	3-909-607-01	SCREW	
⚠260	8-820-103-11	PICK-UP, OPTICAL KSS-720A/C-RP	
261	1-659-835-12	LIMIT BOARD	
262	3-338-737-01	SCREW (2X3), +PS	
M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)	
#9	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3	
#12	7-627-850-28	SCREW, PRECISION +P 1.4X3	

SECTION 5
ELECTRICAL PARTS LIST

DISC IN | KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  CND: Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	1-659-836-11	DISC IN BOARD			
		**********			
		< SWITCH >			
SW1	1-529-566-31	SWITCH, PUSH (1 KEY) (DISC IN)			
SW2	1-529-566-31	SWITCH, PUSH (1 KEY) (SELF)			
**********					
		KEY BOARD			
		**********			
	1-694-906-11	CONDUCTIVE BOARD, CONNECTION			
	3-240-182-01	PLATE (LCD), GROUND			
	3-240-183-01	PLATE (LCD), LIGHT GUIDE			
	3-240-184-01	SHEET (ILLUMINATOR)			
	3-241-287-01	CASE (T), SHIELD			
	3-242-548-01	SHEET (REFLECTOR)			
		< CAPACITOR >			
C900	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C901	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C902	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C904	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C905	1-135-852-21	ELECT CHIP	22uF	20%	6.3V
C906	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C907	1-164-388-11	CERAMIC CHIP	270PF	5%	50V
C908	1-115-156-11	CERAMIC CHIP	1uF		10V
C909	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C910	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C911	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C912	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C982	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C983	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C986	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C990	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C991	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C992	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C993	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN901	1-794-065-22	PLUG, CONNECTOR 14P			
		< DIODE >			
D900	8-719-078-81	DIODE DF5A6.8FU(TE85R)			
D901	8-719-083-85	DIODE UDZS-TE17-22B			
D902	8-719-067-40	DIODE STZ6.8N-T146			
D910	8-719-404-50	DIODE MA111-TX			
D920	8-719-420-90	DIODE MA8051-M			
D972	8-719-977-03	DIODE DTZ5.6B			
D974	8-719-422-94	DIODE MA8091-L			
		< FERRITE BEAD >			
FB901	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB902	1-500-329-21	INDUCTOR, FERRITE BEAD			
		< IC >			
IC901	6-701-630-01	IC LC75848T-E			
IC902	8-759-830-18	IC RRX9000-0601#1			
IC903	8-759-830-17	IC RRX9000-0401R#01			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-804-654-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED900	8-719-083-14	LED RRX9000-0501			
LED910	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED911	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED912	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED913	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED914	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED915	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
		< SWITCH >			
LSW921	1-771-883-11	SWITCH, TACTILE (WITH LED) (OFF)			
LSW922	1-771-883-11	SWITCH, TACTILE (WITH LED) (SOURCE)			
LSW923	1-771-883-11	SWITCH, TACTILE (WITH LED) (VOL +)			
LSW924	1-771-883-11	SWITCH, TACTILE (WITH LED) (VOL –)			
		< TRANSISTOR >			
Q901	8-729-904-75	TRANSISTOR DTD114EK			
		< RESISTOR >			
R901	1-216-037-00	METAL CHIP	330	5%	1/10W
R902	1-216-846-11	METAL CHIP	120K	5%	1/10W
R903	1-216-851-11	METAL CHIP	330K	5%	1/10W
R904	1-216-037-00	METAL CHIP	330	5%	1/10W
R910	1-216-821-11	METAL CHIP	1K	5%	1/10W
R911	1-216-857-11	METAL CHIP	1M	5%	1/10W
R912	1-216-817-11	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R913	1-216-845-11	METAL CHIP	100K	5%	1/10W
R914	1-216-845-11	METAL CHIP	100K	5%	1/10W
R915	1-216-845-11	METAL CHIP	100K	5%	1/10W
R916	1-216-845-11	METAL CHIP	100K	5%	1/10W
R917	1-216-845-11	METAL CHIP	100K	5%	1/10W
R918	1-216-845-11	METAL CHIP	100K	5%	1/10W
R919	1-216-809-11	METAL CHIP	100	5%	1/10W
R921	1-216-819-11	METAL CHIP	680	5%	1/10W
R922	1-216-819-11	METAL CHIP	680	5%	1/10W
R923	1-216-819-11	METAL CHIP	680	5%	1/10W
R924	1-216-821-11	METAL CHIP	1K	5%	1/10W
R933	1-216-029-00	METAL CHIP	150	5%	1/10W
R934	1-216-029-00	METAL CHIP	150	5%	1/10W
R971	1-216-029-00	METAL CHIP	150	5%	1/10W
R972	1-216-027-00	METAL CHIP	120	5%	1/10W
R973	1-216-029-00	METAL CHIP	150	5%	1/10W
R974	1-216-027-00	METAL CHIP	120	5%	1/10W
R975	1-216-029-00	METAL CHIP	150	5%	1/10W
R976	1-216-027-00	METAL CHIP	120	5%	1/10W
R979	1-216-037-00	METAL CHIP	330	5%	1/10W
R980	1-216-037-00	METAL CHIP	330	5%	1/10W
R981	1-216-029-00	METAL CHIP	150	5%	1/10W
R982	1-216-029-00	METAL CHIP	150	5%	1/10W
R983	1-216-857-11	METAL CHIP	1M	5%	1/10W
R984	1-216-821-11	METAL CHIP	1K	5%	1/10W
R985	1-216-821-11	METAL CHIP	1K	5%	1/10W
R986	1-216-821-11	METAL CHIP	1K	5%	1/10W
R987	1-216-841-11	METAL CHIP	47K	5%	1/10W
R988	1-216-029-00	METAL CHIP	150	5%	1/10W
R990	1-216-041-00	METAL CHIP	470	5%	1/10W
R991	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R992	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R993	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R994	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
		< VIBRATOR >			
X910	1-781-646-21	VIBRATOR, CERAMIC (4MHz)			
**********					
	1-659-835-12	LIMIT BOARD			
		**********			
		< SWITCH >			
SW3	1-529-565-51	SWITCH, PUSH (1 KEY) (LIMIT)			
**********					
	1-659-837-11	LOAD BOARD			
		**********			
		< SWITCH >			
SW4	1-529-566-31	SWITCH, PUSH (1 KEY) (DOWN)			
**********					

Ref. No.	Part No.	Description			Remark
	A-3274-217-A	MAIN BOARD, COMPLETE (AEP,UK,E)			
	A-3274-218-A	MAIN BOARD, COMPLETE (US,CND)			
		**********			
	1-790-355-54	CORD (WITH CONNECTOR) (RCA) (SUB OUT (MONO))			
*	3-040-998-01	BRACKET (IC)			
*	3-223-780-11	HEAT SINK (E)			
*	3-223-780-21	HEAT SINK (US,CND)			
*	3-223-783-21	CHASSIS (BACK)			
	3-240-186-01	HEAT SINK (REG)			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
	7-685-790-01	SCREW +PTT 2.6X4 (S)			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
	7-685-797-09	SCREW +PTT 2.6X16 (S)			
		< CAPACITOR >			
C102	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C103	1-126-794-11	ELECT	4.7uF	20%	25V
C108	1-135-473-21	ELECT	3300uF	20%	16V
C109	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C110	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C111	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C112	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C113	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C114	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C115	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C201	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C202	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C205	1-162-974-11	CERAMIC CHIP	0.01uF		50V (US,CND)
C206	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C217	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK,E)
C218	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK,E)
C219	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK,E)
C220	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP,UK,E)
C221	1-164-315-11	CERAMIC CHIP	470PF	5%	50V (AEP,UK,E)
C222	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V (AEP,UK,E)
C223	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V (AEP,UK,E)
C224	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V (AEP,UK,E)
C225	1-126-947-11	ELECT	47uF	20%	16V
C226	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C227	1-126-154-11	ELECT	47uF	20%	6.3V
C229	1-164-156-11	CERAMIC CHIP	0.1uF		25V (AEP,UK,E)
C230	1-126-154-11	ELECT	47uF	20%	6.3V (AEP,UK,E)
C231	1-162-920-11	CERAMIC CHIP	27PF	5%	50V (AEP,UK,E)

Ref. No.	Part No.	Description			Remark
C232	1-162-920-11	CERAMIC CHIP	27PF	5%	50V (AEP,UK,E)
C233	1-164-156-11	CERAMIC CHIP	0.1uF		25V (AEP,UK,E)
C234	1-164-156-11	CERAMIC CHIP	0.1uF		25V (AEP,UK,E)
C235	1-162-959-11	CERAMIC CHIP	330PF	5%	50V (AEP,UK,E)
C236	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V (AEP,UK,E)
C237	1-164-739-11	CERAMIC CHIP	560PF	5%	50V (AEP,UK,E)
C241	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK,E)
C251	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C252	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C253	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C254	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C255	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C302	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C303	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C304	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C305	1-124-589-11	ELECT	47uF	20%	16V
C306	1-115-871-11	ELECT	1uF	20%	50V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-115-871-11	ELECT	1uF	20%	50V
C309	1-115-871-11	ELECT	1uF	20%	50V
C310	1-115-871-11	ELECT	1uF	20%	50V
C311	1-104-942-11	ELECT	1uF	20%	50V
C312	1-136-154-00	FILM	0.012uF	5%	50V
C313	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C314	1-136-154-00	FILM	0.012uF	5%	50V
C315	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C316	1-126-791-11	ELECT	10uF	20%	16V
C317	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C318	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C319	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C320	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C321	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C322	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C335	1-107-905-61	ELECT	4.7uF	20%	50V
C336	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C337	1-107-905-61	ELECT	4.7uF	20%	50V
C338	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C339	1-107-905-61	ELECT	4.7uF	20%	50V
C340	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C341	1-107-905-61	ELECT	4.7uF	20%	50V
C342	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C343	1-126-794-11	ELECT	4.7uF	20%	25V
C344	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C345	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C346	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C347	1-162-974-11	CERAMIC CHIP	0.01uF		50V (US,CND)
C361	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C362	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C363	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C371	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C372	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C373	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C374	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C375	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C378	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C380	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C381	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C382	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C383	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C384	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C385	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C386	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C387	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C388	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C389	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C390	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C393	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C394	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C400	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (US,CND)
C401	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C403	1-126-153-11	ELECT	22uF	20%	6.3V
C406	1-126-153-11	ELECT	22uF	20%	6.3V
C407	1-124-584-00	ELECT	100uF	20%	10V
C408	1-128-057-11	ELECT	330uF	20%	6.3V
C410	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C501	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C502	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C503	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C504	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C505	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V (AEP,UK,E)
C505	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V (US,CND)
C506	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C507	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C508	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C509	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C510	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C513	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C514	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (AEP,UK,E)
C520	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C521	1-128-057-11	ELECT	330uF	20%	6.3V
C522	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C523	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C601	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C602	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C603	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C604	1-126-935-11	ELECT	470uF	20%	16V
C701	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C702	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C703	1-164-156-11	CERAMIC CHIP	0.1uF		25V

MAIN

Ref. No.	Part No.	Description			Remark
C704	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C705	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C706	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C707	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C708	1-128-057-11	ELECT	330uF	20%	6.3V
C709	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C710	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C711	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C712	1-104-942-11	ELECT	1uF	20%	50V
C714	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C715	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C716	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C717	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C718	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C722	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (US,CND)
C724	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C726	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C727	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C801	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C802	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C803	1-124-584-00	ELECT	100uF	20%	10V
C804	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C805	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C806	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C807	1-126-157-11	ELECT	10uF	20%	16V
C808	1-126-153-11	ELECT	22uF	20%	6.3V
C842	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C843	1-126-786-11	ELECT	47uF	20%	16V
C844	1-104-942-11	ELECT	1uF	20%	50V
C847	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C848	1-126-157-11	ELECT	10uF	20%	16V
		< CONNECTOR >			
CN101	1-774-701-11	PIN, CONNECTOR 16P			
* CN301	1-564-506-11	PLUG, CONNECTOR 3P			
CN401	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P			
CN601	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
* CN701	1-569-908-11	SOCKET, CONNECTOR 14P			
		< JACK >			
CN201	1-815-185-12	JACK (ANTENNA)			
CN302	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, AUDIO OUT REAR/FRONT)			
		< DIODE >			
D101	8-719-049-38	DIODE 1N5404TU			
D102	8-719-017-58	DIODE MA8068			
D105	8-719-404-50	DIODE MA111-TX			
D106	8-719-200-82	DIODE 11ES2			
D107	8-719-200-82	DIODE 11ES2			
D202	8-719-404-50	DIODE MA111-TX			
D203	8-719-422-41	DIODE MA8051-L-TX			
D204	8-719-800-76	DIODE 1SS226 (AEP,UK,E)			
D300	8-719-977-03	DIODE DTZ5.6B			
D301	8-719-200-82	DIODE 11ES2			

Ref. No.	Part No.	Description	Remark
D302	8-719-200-82	DIODE 11ES2	
D303	8-719-200-82	DIODE 11ES2	
D304	8-719-200-82	DIODE 11ES2	
D305	8-719-200-82	DIODE 11ES2	
D306	8-719-200-82	DIODE 11ES2	
D307	8-719-200-82	DIODE 11ES2	
D308	8-719-200-82	DIODE 11ES2	
D391	8-719-017-58	DIODE MA8068	
D501	8-719-801-78	DIODE 1SS184	
D504	8-719-404-50	DIODE MA111-TX	
D505	8-719-422-41	DIODE MA8051-L-TX (AEP,UK,E)	
D601	8-719-404-50	DIODE MA111-TX	
D603	8-719-017-94	DIODE MA8180	
D604	8-719-420-51	DIODE MA729	
D605	8-719-083-85	DIODE UDZS-TE17-22B	
D606	8-719-083-85	DIODE UDZS-TE17-22B	
D607	8-719-801-78	DIODE 1SS184	
D609	8-719-422-64	DIODE MA8062-M	
D610	8-719-404-50	DIODE MA111-TX	
D653	8-719-820-05	DIODE 1SS181 (AEP,UK,E)	
D654	8-719-404-50	DIODE MA111-TX (US,CND)	
D703	8-719-083-85	DIODE UDZS-TE17-22B	
D708	8-719-083-85	DIODE UDZS-TE17-22B	
D801	8-719-420-14	DIODE MA8082-M	
D802	8-719-067-56	DIODE MA112-TX	
D845	8-719-404-50	DIODE MA111-TX	
		< FERRITE BEAD >	
FB201	1-414-813-11	FERRITE, EMI (SMD)	
FB230	1-414-813-11	FERRITE, EMI (SMD) (AEP,UK,E)	
FB231	1-414-813-11	FERRITE, EMI (SMD) (AEP,UK,E)	
FB400	1-414-813-11	FERRITE, EMI (SMD)	
FB401	1-414-813-11	FERRITE, EMI (SMD)	
FB402	1-414-813-11	FERRITE, EMI (SMD)	
FB501	1-414-813-11	FERRITE, EMI (SMD)	
FB701	1-414-813-11	FERRITE, EMI (SMD)	
FB702	1-414-813-11	FERRITE, EMI (SMD)	
FB703	1-414-813-11	FERRITE, EMI (SMD)	
		< IC >	
IC201	8-759-492-59	IC SAA6588T-118 (AEP,UK,E)	
IC202	8-759-100-96	IC uPC4558G2 (AEP,UK,E)	
IC301	6-701-403-01	IC TDA7406	
IC304	8-759-832-29	IC NJM4580M-(TE2)	
IC305	8-759-832-29	IC NJM4580M-(TE2)	
IC361	8-759-530-28	IC TC4066BFT(EL,N)	
IC381	8-759-827-14	IC TA8268AH	
IC501	6-801-609-01	IC MB90574CPMT-G-367-BNDE1 (US,CND)	
IC501	6-801-610-01	IC MB90574CPMT-G-368-BNDE1 (AEP,UK,E)	
IC502	8-759-828-22	IC XC61CN4102MR	
IC601	8-759-449-89	IC BA8270F-E2	
IC701	6-801-611-01	IC HD6432398A04FW	
IC702	8-759-277-63	IC TC7W14FU(TE12R)	
IC801	6-702-050-01	IC AN80T33	

Ref. No.	Part No.	Description			Remark
		< JACK >			
J651	1-566-822-41	JACK (REMOTE IN) (AEP,UK,E)			
		< COIL >			
L101	1-419-476-11	COIL, CHOKE	250uH		
L401	1-410-513-11	INDUCTOR	22uH		
		< TRANSISTOR >			
Q101	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
Q102	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
Q103	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
Q104	8-729-056-00	FET MCH3310-TL-E			
Q105	8-729-421-22	TRANSISTOR UN2211			
Q106	8-729-421-22	TRANSISTOR UN2211			
Q107	8-729-056-00	FET MCH3310-TL-E			
Q201	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q202	8-729-421-22	TRANSISTOR UN2211			
Q203	8-729-106-68	TRANSISTOR 2SD1615A-GP			
Q211	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,E)			
Q212	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R (AEP,UK,E)			
Q306	8-729-920-21	TRANSISTOR DTC314TK-T-146			
Q307	8-729-920-21	TRANSISTOR DTC314TK-T-146			
Q308	8-729-920-21	TRANSISTOR DTC314TK-T-146			
Q309	8-729-920-21	TRANSISTOR DTC314TK-T-146			
Q310	8-729-920-21	TRANSISTOR DTC314TK-T-146			
Q391	8-729-053-84	FET SSM3K09FU(T5LSONY1)			
Q405	8-729-421-22	TRANSISTOR UN2211			
Q602	8-729-421-22	TRANSISTOR UN2211			
Q603	8-729-424-18	TRANSISTOR UN2113			
Q701	8-729-424-08	TRANSISTOR UN2111			
Q702	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q703	8-729-421-22	TRANSISTOR UN2211			
Q705	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q706	8-729-421-22	TRANSISTOR UN2211			
Q801	8-729-922-47	TRANSISTOR 2SB1184-TLR			
Q802	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
Q803	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
Q843	8-729-421-22	TRANSISTOR UN2211			
Q844	8-729-424-08	TRANSISTOR UN2111			
		< RESISTOR >			
R101	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R102	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R103	1-216-073-00	RES-CHIP	10K	5%	1/10W
R104	1-216-821-11	METAL CHIP	1K	5%	1/10W
R105	1-216-841-11	METAL CHIP	47K	5%	1/10W
R106	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R107	1-216-841-11	METAL CHIP	47K	5%	1/10W
R108	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R109	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R110	1-216-845-11	METAL CHIP	100K	5%	1/10W
R111	1-216-837-11	METAL CHIP	22K	5%	1/10W
R113	1-216-833-11	METAL CHIP	10K	5%	1/10W
R114	1-216-833-11	METAL CHIP	10K	5%	1/10W
R115	1-216-833-11	METAL CHIP	10K	5%	1/10W
R116	1-216-833-11	METAL CHIP	10K	5%	1/10W
R117	1-216-833-11	METAL CHIP	10K	5%	1/10W
R118	1-216-833-11	METAL CHIP	10K	5%	1/10W
R119	1-216-833-11	METAL CHIP	10K	5%	1/10W
R120	1-216-833-11	METAL CHIP	10K	5%	1/10W
R125	1-216-841-11	METAL CHIP	47K	5%	1/10W
R130	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R131	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R132	1-216-073-00	RES-CHIP	10K	5%	1/10W
R201	1-216-797-11	METAL CHIP	10	5%	1/10W
R202	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R203	1-216-833-11	METAL CHIP	10K	5%	1/10W
R205	1-216-817-11	METAL CHIP	470	5%	1/10W
R207	1-216-809-11	METAL CHIP	100	5%	1/10W
R208	1-216-809-11	METAL CHIP	100	5%	1/10W
R222	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (AEP,UK,E)
R223	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (AEP,UK,E)
R224	1-216-857-11	METAL CHIP	1M	5%	1/10W (AEP,UK,E)
R225	1-216-809-11	METAL CHIP	100	5%	1/10W (AEP,UK,E)
R226	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP,UK,E)
R227	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP,UK,E)
R228	1-216-809-11	METAL CHIP	100	5%	1/10W (AEP,UK,E)
R229	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP,UK,E)
R230	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (AEP,UK,E)
R231	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP,UK,E)
R232	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP,UK,E)
R233	1-216-832-11	METAL CHIP	8.2K	5%	1/10W (AEP,UK,E)
R236	1-216-817-11	METAL CHIP	470	5%	1/10W (AEP,UK,E)
R251	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R252	1-216-845-11	METAL CHIP	100K	5%	1/10W
R253	1-216-841-11	METAL CHIP	47K	5%	1/10W
R254	1-216-841-11	METAL CHIP	47K	5%	1/10W
R301	1-216-833-11	METAL CHIP	10K	5%	1/10W
R302	1-216-833-11	METAL CHIP	10K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-864-11	METAL CHIP	0	5%	1/10W
R305	1-216-833-11	METAL CHIP	10K	5%	1/10W
R306	1-216-833-11	METAL CHIP	10K	5%	1/10W
R307	1-216-833-11	METAL CHIP	10K	5%	1/10W
R308	1-216-864-11	METAL CHIP	0	5%	1/10W
R309	1-216-864-11	METAL CHIP	0	5%	1/10W
R330	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R331	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R332	1-216-833-11	METAL CHIP	10K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R333	1-216-833-11	METAL CHIP	10K	5%	1/10W
R334	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R336	1-216-841-11	METAL CHIP	47K	5%	1/10W
R338	1-216-841-11	METAL CHIP	47K	5%	1/10W
R340	1-216-841-11	METAL CHIP	47K	5%	1/10W
R342	1-216-841-11	METAL CHIP	47K	5%	1/10W
R344	1-216-841-11	METAL CHIP	47K	5%	1/10W
R361	1-216-835-11	METAL CHIP	15K	5%	1/10W
R362	1-216-835-11	METAL CHIP	15K	5%	1/10W
R363	1-216-833-11	METAL CHIP	10K	5%	1/10W
R364	1-216-835-11	METAL CHIP	15K	5%	1/10W
R365	1-216-835-11	METAL CHIP	15K	5%	1/10W
R366	1-216-833-11	METAL CHIP	10K	5%	1/10W
R370	1-216-821-11	METAL CHIP	1K	5%	1/10W
R371	1-216-813-11	METAL CHIP	220	5%	1/10W
R372	1-216-813-11	METAL CHIP	220	5%	1/10W
R373	1-216-813-11	METAL CHIP	220	5%	1/10W
R374	1-216-813-11	METAL CHIP	220	5%	1/10W
R375	1-216-813-11	METAL CHIP	220	5%	1/10W
R383	1-216-821-11	METAL CHIP	1K	5%	1/10W
R384	1-216-821-11	METAL CHIP	1K	5%	1/10W
R385	1-216-821-11	METAL CHIP	1K	5%	1/10W
R386	1-216-821-11	METAL CHIP	1K	5%	1/10W
R398	1-216-809-11	METAL CHIP	100	5%	1/10W
R399	1-216-295-11	SHORT CHIP	0		
R407	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R409	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R410	1-216-817-11	METAL CHIP	470	5%	1/10W
R411	1-216-817-11	METAL CHIP	470	5%	1/10W
R412	1-216-817-11	METAL CHIP	470	5%	1/10W
R501	1-216-845-11	METAL CHIP	100K	5%	1/10W
R504	1-216-845-11	METAL CHIP	100K	5%	1/10W
R505	1-216-845-11	METAL CHIP	100K	5%	1/10W
R506	1-216-837-11	METAL CHIP	22K	5%	1/10W
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W
R508	1-216-833-11	METAL CHIP	10K	5%	1/10W
R509	1-216-833-11	METAL CHIP	10K	5%	1/10W
R510	1-216-841-11	METAL CHIP	47K	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-813-11	METAL CHIP	220	5%	1/10W
R516	1-216-864-11	METAL CHIP	0	5%	1/10W
R521	1-216-809-11	METAL CHIP	100	5%	1/10W
R522	1-216-845-11	METAL CHIP	100K	5%	1/10W
R523	1-216-845-11	METAL CHIP	100K	5%	1/10W
R524	1-216-845-11	METAL CHIP	100K	5%	1/10W
R525	1-216-853-11	METAL CHIP	470K	5%	1/10W
R527	1-216-817-11	METAL CHIP	470	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-216-821-11	METAL CHIP	1K	5%	1/10W
R531	1-216-821-11	METAL CHIP	1K	5%	1/10W
R532	1-216-864-11	METAL CHIP	0	5%	1/10W
R533	1-216-864-11	METAL CHIP	0	5%	1/10W
R534	1-216-864-11	METAL CHIP	0	5%	1/10W
R535	1-216-864-11	METAL CHIP	0	5%	1/10W

Ref. No.	Part No.	Description			Remark
R536	1-216-864-11	METAL CHIP	0	5%	1/10W
R537	1-216-821-11	METAL CHIP	1K	5%	1/10W
R538	1-216-809-11	METAL CHIP	100	5%	1/10W
R539	1-216-809-11	METAL CHIP	100	5%	1/10W
R540	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-809-11	METAL CHIP	100	5%	1/10W
R542	1-216-809-11	METAL CHIP	100	5%	1/10W
R543	1-216-809-11	METAL CHIP	100	5%	1/10W
R544	1-216-833-11	METAL CHIP	10K	5%	1/10W
R545	1-216-845-11	METAL CHIP	100K	5%	1/10W
R548	1-216-809-11	METAL CHIP	100	5%	1/10W
R549	1-216-809-11	METAL CHIP	100	5%	1/10W
R571	1-216-845-11	METAL CHIP	100K	5%	1/10W
R601	1-216-809-11	METAL CHIP	100	5%	1/10W
R604	1-216-821-11	METAL CHIP	1K	5%	1/10W
R605	1-216-809-11	METAL CHIP	100	5%	1/10W
R607	1-216-835-11	METAL CHIP	15K	5%	1/10W
R652	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R653	1-216-809-11	METAL CHIP	100	5%	1/10W
R654	1-216-809-11	METAL CHIP	100	5%	1/10W (AEP,UK,E)
R702	1-216-809-11	METAL CHIP	100	5%	1/10W
R703	1-216-845-11	METAL CHIP	100K	5%	1/10W
R704	1-216-864-11	METAL CHIP	0	5%	1/10W
R705	1-216-864-11	METAL CHIP	0	5%	1/10W
R706	1-216-809-11	METAL CHIP	100	5%	1/10W
R707	1-216-845-11	METAL CHIP	100K	5%	1/10W
R708	1-216-845-11	METAL CHIP	100K	5%	1/10W
R709	1-216-845-11	METAL CHIP	100K	5%	1/10W
R711	1-216-037-00	METAL CHIP	330	5%	1/10W
R712	1-216-864-11	METAL CHIP	0	5%	1/10W
R713	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R714	1-216-813-11	METAL CHIP	220	5%	1/10W
R716	1-216-813-11	METAL CHIP	220	5%	1/10W
R717	1-216-809-11	METAL CHIP	100	5%	1/10W
R720	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R724	1-216-845-11	METAL CHIP	100K	5%	1/10W
R728	1-216-845-11	METAL CHIP	100K	5%	1/10W
R732	1-216-821-11	METAL CHIP	1K	5%	1/10W
R733	1-216-037-00	METAL CHIP	330	5%	1/10W
R734	1-216-821-11	METAL CHIP	1K	5%	1/10W
R737	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R738	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R739	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R740	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R741	1-216-037-00	METAL CHIP	330	5%	1/10W
R744	1-216-813-11	METAL CHIP	220	5%	1/10W
R745	1-216-001-00	METAL CHIP	10	5%	1/10W
R746	1-216-001-00	METAL CHIP	10	5%	1/10W
R748	1-216-001-00	METAL CHIP	10	5%	1/10W
R749	1-216-001-00	METAL CHIP	10	5%	1/10W
R801	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R802	1-216-833-11	METAL CHIP	10K	5%	1/10W
R803	1-216-821-11	METAL CHIP	1K	5%	1/10W
R804	1-216-817-11	METAL CHIP	470	5%	1/10W
R805	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

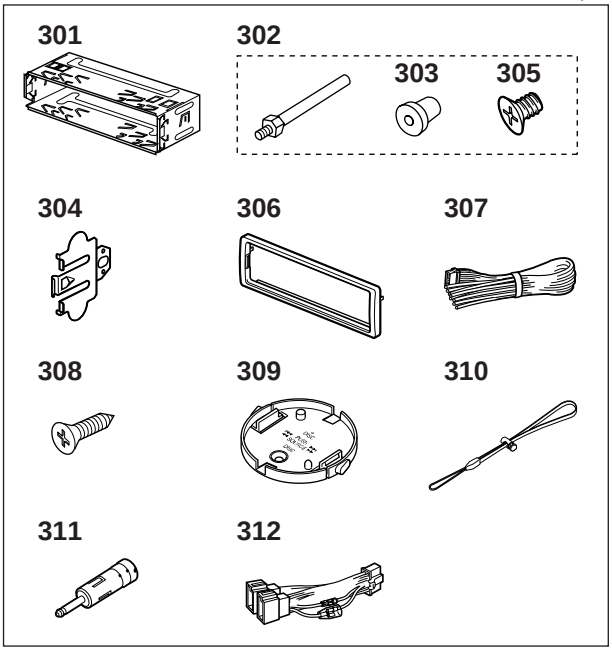
Ref. No.	Part No.	Description			Remark
R806	1-216-838-11	METAL CHIP	27K	5%	1/10W
R840	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R845	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R847	1-216-017-11	RES-CHIP	47	5%	1/10W
R848	1-216-833-11	METAL CHIP	10K	5%	1/10W
R849	1-216-821-11	METAL CHIP	1K	5%	1/10W
R850	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S101	1-692-431-21	SWITCH, TACTILE (RESET)			
S102	1-771-540-11	SWITCH, PUSH (1 KEY) (NOSE)			
		< THERMISTOR (POSITIVE) >			
TH101	1-810-940-11	THERMISTOR, POSITIVE			
TH102	1-810-940-11	THERMISTOR, POSITIVE			
TH601	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER >			
TUX201	A-3220-812-A	TUNER UNIT (TUX-020)			
		< VIBRATOR >			
X201	1-767-853-21	VIBRATOR, CRYSTAL (4.332MHz) (AEP,UK,E)			
X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X502	1-795-585-11	VIBRATOR, CERAMIC (CHIP TYPE) (3.68MHz)			
X701	1-795-584-11	VIBRATOR, CERAMIC (CHIP TYPE) (18.432MHz)			
**********					
	A-3283-270-A	SERVO BOARD, COMPLETE **********			
	1-683-666-11	PICK-UP FLEXIBLE BOARD			
		< CAPACITOR >			
C1	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C4	1-104-609-11	ELECT CHIP	100uF	20%	4V
C5	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C9	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C10	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C11	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C13	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C14	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C15	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C16	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C17	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C18	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C19	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C22	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C23	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C24	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C25	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C26	1-126-391-11	ELECT CHIP	47uF	20%	6.3V

Ref. No.	Part No.	Description			Remark
C27	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C29	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C30	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C36	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C38	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C41	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C43	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C44	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C70	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C71	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN1	1-764-616-12	HOUSING, CONNECTOR (PC BOARD) 30P			
CN3	1-770-347-21	CONNECTOR, FPC 6P			
		< RESISTOR >			
FB5	1-216-298-11	METAL CHIP	2.2	5%	1/10W
		< IC >			
IC1	8-759-699-98	IC uPD63711GC-8EU			
IC2	8-759-658-87	IC BA5810FP-E2			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
		< RESISTOR >			
R3	1-216-797-11	METAL CHIP	10	5%	1/10W
R5	1-218-344-11	RES-CHIP	7.5K	5%	1/10W
R6	1-216-837-11	METAL CHIP	22K	5%	1/10W
R7	1-216-839-11	METAL CHIP	33K	5%	1/10W
R8	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9	1-216-840-11	METAL CHIP	39K	5%	1/10W
R10	1-216-835-11	METAL CHIP	15K	5%	1/10W
R12	1-216-837-11	METAL CHIP	22K	5%	1/10W
R14	1-216-841-11	METAL CHIP	47K	5%	1/10W
R15	1-216-841-11	METAL CHIP	47K	5%	1/10W
R17	1-216-809-11	METAL CHIP	100	5%	1/10W
R18	1-216-809-11	METAL CHIP	100	5%	1/10W
R19	1-216-809-11	METAL CHIP	100	5%	1/10W
R20	1-216-809-11	METAL CHIP	100	5%	1/10W
R21	1-216-821-11	METAL CHIP	1K	5%	1/10W
R22	1-216-821-11	METAL CHIP	1K	5%	1/10W
R26	1-216-797-11	METAL CHIP	10	5%	1/10W
R29	1-216-833-11	METAL CHIP	10K	5%	1/10W
R30	1-216-833-11	METAL CHIP	10K	5%	1/10W
R31	1-216-789-11	METAL CHIP	2.2	5%	1/10W
		< VIBRATOR >			
X1	1-795-520-11	VIBRATOR, CERAMIC (16.9344MHz)			
**********					

SUB SUB (CD)

Ref. No.	Part No.	Description	Remark
	1-659-834-11	SUB BOARD	
		**********	
	1-659-880-11	MOTOR FLEXIBLE BOARD	
		< CONNECTOR >	
CN1	1-770-347-21	CONNECTOR, FPC 6P	
**********			
	1-684-929-11	SUB (CD) BOARD	
		**********	
	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE) (CN851)	
		< CONNECTOR >	
CN852	1-794-064-12	SOCKET, CONNECTOR 14P	
		< DIODE >	
D851	8-719-078-81	DIODE DF5A6.8FU(TE85R)	
D852	8-719-078-81	DIODE DF5A6.8FU(TE85R)	
LED851	8-719-082-38	LED CL-270SR-C-TS (CD WINDOW)	
		< SWITCH >	
LSW851	1-771-883-11	SWITCH, TACTILE (WITH LED) (⏏)	
		< RESISTOR >	
R855	1-216-819-11	METAL CHIP 680 5% 1/10W	
R856	1-216-819-11	METAL CHIP 680 5% 1/10W	
**********			
		MISCELLANEOUS	
		**********	
9	1-776-207-72	CORD (WITH CONNECTOR) (POWER) (US,CND,E)	
9	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)
251	X-3381-611-1	CHASSIS (OP) ASSY (including M901)	
⚠260	8-820-103-11	PICK-UP, OPTICAL KSS-720A/C-RP	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3291-674-A	MOTOR ASSY, SLED (SLED)	
M903	A-3315-039-A	MOTOR SUB ASSY, LD (LOADING)	
**********			

Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		**********	
	1-476-546-32	REMOTE COMMANDER (RM-X113) (AEP,UK,E)	
	1-476-546-42	REMOTE COMMANDER (RM-X112) (US,CND)	
	1-477-244-11	COMMANDER, WIRELESS ROTARY (RM-X6S)	
	3-230-549-01	LID, BATTERY CASE (for RM-X112/X113)	
	3-241-106-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH) (US,CND)	
	3-241-106-21	MANUAL, INSTRUCTION (ENGLISH, TRADITIONAL CHINESE) (E)	
	3-241-106-31	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH) (AEP,UK)	
	3-241-107-11	MANUAL, INSTRUCTION INSTALL (ENGLISH, FRENCH,SPANISH) (US,CND)	
	3-241-107-21	MANUAL, INSTRUCTION INSTALL (ENGLISH, TRADITIONAL CHINESE) (E)	
	3-241-107-31	MANUAL, INSTRUCTION INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH) (AEP,UK)	
	3-243-407-01	LID, BATTERY CASE (for RM-X6S)	
	X-3378-490-2	CASE (PANEL) ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3381-546-1	FRAME ASSY, FITTING	
302	X-3381-154-1	SCREW ASSY (BS4), FITTING (AEP,UK,E)	
303	3-349-410-11	BUSHING (AEP,UK,E)	
304	3-233-644-02	SPRING, FITTING	
305	3-934-325-01	SCREW, +K (5X8) TAPPING	
306	3-236-447-02	COLLAR	
307	1-776-207-72	CORD (WITH CONNECTOR) (POWER) (US,CND,E)	
308	7-685-248-14	SCREW +KTP 3X12 TYPE4 (for RM-X6S)	
309	3-243-408-01	LARGE (ROTARY COMMANDER) (for RM-X6S)	
310	3-231-381-01	STRAP (ROTARY COMMANDER) (for RM-X6S)	
311	1-465-459-21	ADAPTER, ANTENNA (AEP,UK)	
312	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2002. 04	New
1.1	2002. 08	Addition of Destination (AEP, UK Model) (ENG-02011)